Recent Changes in the Distribution of the Social Wage

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Editorial Note and Acknowledgments

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Abstract

This paper examines the distribution of the "social wage" benefits in kind from welfare services, including the National Health Service, state education, social housing, and personal social services. The current Government has put a strong emphasis on improving public services and has begun to translate this into higher spending. Although most measures of poverty ignore the social wage, its inclusion is potentially very significant in monitoring the impact of government policies on the poorest households. The paper produces estimates of the value of the social wage for 1996/7 and 2000/01, using data from several large-scale household surveys, and makes comparisons with estimates from previous work going back to 1979. The results show that people in poorer households receive a greater share of benefits in kind from welfare services than those in richer households and that this 'pro-poor' bias has been rising gradually over the long-term. Since 1996/7, spending on welfare services has grown faster than in the past and there has been a further incremental shift in favour of lower income groups across all the major services. These changes have reinforced the re-distributional effects of tax and benefit policies over the same period, though they have not prevented inequality from rising.

Keywords: social wage, benefits in kind, redistribution, inequality, welfare spending.
JEL number: I30

I. Introduction

Around a third of all government spending is on welfare services, such as the National Health Service, state education, social housing, and social care services. The value of these services can be thought of as an income in-kind – a "social wage" – that represents a substantial addition to people's cash incomes, especially for those at the bottom of the income distribution.

The current Government's welfare reforms have put a strong emphasis on improved public services for all and the Government has, more recently, begun to translate this into higher spending. While public spending was tightly restrained for its first two years, spending plans for the rest of its first term incorporated substantial increases in spending, focused on health care and education. Their impact is of great policy relevance in view of the current Government's concern with inequality and a more specific commitment to reducing child poverty (H M Treasury, 2001). How have the benefits of higher spending on certain services been spread and how far have any gains been offset by other changes in welfare policies, such as the abolition of maintenance grants for students and increases in local authority rents?

Although most measures of poverty and inequality ignore the value of benefits in kind, their inclusion is potentially very significant in monitoring the impact of government policies on the poorest households. Analyses of the impact of fiscal reforms during Labour's first term show that lower income groups have benefited most from changes to the tax/benefit system since May 1997 (Clark, Myck, and Smith, 2001; Piachaud and Sutherland, 2001). We look at whether these effects are magnified or offset by changes in the value of the social wage over the same period.

The social wage is a measure of how much better off individuals are with the provision of publicly funded welfare services than they would be without these 'in kind' benefits (i.e. if they had to pay the full cost of these services). But, adding the social wage to people's cash incomes will not produce a better measure of people's standard of living. For example, the fact that an 85-year old is making intensive use of the NHS does not make him or her better off than a younger person who does not require as much health care. To measure the impact on

people's living standards, you would also need to adjust for differences in needs between individuals, which is beyond the scope of this paper.

Interest in the distribution of the social wage depends on the significance attached to the re-distributive role of welfare services, which is just one of a number of possible objectives. Much of what the welfare state does, for example, is to provide social insurance against adverse situations, such as unemployment or ill health (Hills, 1993). Furthermore, some commentators have argued that what matters is not how much people actually use a service, but the principle that everyone is entitled to use that service without discrimination, including on the basis of ability to pay (Powell, 1995). However, our starting point is that distributional issues are an important consideration for welfare services, though not the only one or, necessarily, the primary one.

Previous research in this area has tended to focus on whether the delivery of a particular service is consistent with some notion of fairness or equality – usually measured in relation to needs (e.g. Le Grand, 1982; O'Connell and Propper, 1991). Whilst our analysis does not address in detail the relationship between needs and provision, it does provide a much more comprehensive picture as to how the benefits from welfare services vary according to people's social, economic, and demographic characteristics, focusing on differences between income groups.

Section II describes the methodology used to apportion the value of benefits in kind. Section III examines the overall distribution of the social wage in the most recent year, 2000/01, how this has changed over time, and the impact on income inequality. Section IV explores in more detail the distribution of benefits in kind for each of the major services and any significant changes since 1996/7. Section V concludes.

II. Approach

The Office of National Statistics (ONS) already produces annual estimates of benefits in kind for health, education, housing, and a few smaller items, such as welfare milk, as part of a much broader analysis of the distributional effects of taxes and public spending (Lakin, 2002). Whilst suitable for these purposes, their estimates of benefits in kind are only indicative. The apportionment of spending between households is

fairly crude – for example they allocate each individual a fixed amount for health care, based solely on their age and gender.

Our approach seeks to improve on the ONS estimates, by allowing for the effects of income, tenure and other socio-economic variables on people's use of welfare services. This shows that there are significant differences in the use of services by different income groups over and above the effects of age and gender – most of which will not be reflected in the official series. Analysis of previous estimates covering the period 1979-93 shows that changes in the distribution of the social wage over time are also sensitive to the methodology used for apportioning benefits (Sefton, 1997).

The work reported here updates, and improves on, our earlier research, using better data to generate more robust estimates. Our analysis is carried out for three different years – 1993/4, 1996/7, and 2000/01. The first of these years corresponds to the final year of our previous study; this enables us to check the consistency of our results against previous work and gives us a historical series going back to 1979. The focus of this paper, however, is on the two later years. 1996/7 provides a baseline for this Labour Government. 2000/01 is the latest available dataset and corresponds broadly to the end of their first term.

The base dataset for our analysis is the Family Resources Survey (FRS). The FRS contains information on a representative sample of over 55,000 individuals in Great Britain[1], including socio-demographic characteristics, household income, and the use of education, housing, and certain health care services. For 1996/7 only, the FRS Disability Follow-Up Survey provides additional data on the use of various social care services, including home care and day care. Information on the use of other NHS services is 'imported' from two other household surveys – the General Household Survey and the British Household Panel Survey (see Annex A for details of the methodology used). One of the advantages of having the FRS as our base dataset is that it is used to derive the Government's official income measure for monitoring trends in inequality – Households Below Average Income – which we use to

[1] Population numbers are grossed up to UK levels, assuming that the FRS is representative of all households in the United Kingdom. This seems a reasonable assumption given that Northern Ireland accounts for only around 2% of the total UK population.

rank households by income group. It is also substantially larger than other household surveys, so we can be much more confident that our estimates are capturing genuine variation in the use of services, as opposed to sampling errors.

For most services, benefits in kind are measured by apportioning total spending in proportion to individuals' reported use of these services (see Annex B for a list of the survey questions used). For example, spending on in-patient care is distributed between those who reported an in-patient stay in an NHS hospital over the last year. Spending is not allocated on items that cannot easily be attributed to individuals or households, such as central administrative costs, or where there is no survey data on people's use of those services. For health and education, we are able to allocate around four-fifths of total spending (see Table 1 below and Annex C for a more detailed breakdown of expenditure and data sources).

Where fees are charged, as in the case of prescriptions for example, these are spread between users that are not exempt – again, in proportion to individuals' use of these services. Where support is means-tested, as in the case of tuition fees, then the means-test is simulated, as far as possible, using survey data on people's incomes and savings. Though revenue from welfare services is a relatively small proportion of gross spending, it has a disproportionate impact on the distribution of benefits in kind, because the costs are borne largely by better-off service users.

For housing, however, net expenditure in any given year is a poor guide to the value of benefits in kind. What we attempt to measure instead is the difference between the rents charged by local authorities before deducting housing benefit[2] and the 'economic rent' they would need to charge in order to cover their costs in full. Economic rents are estimated using information on the rents paid for similar properties in the private rented sector (see Annex A). Former Right To Buy participants are also allocated a benefit in kind to reflect the subsidy they receive in the form of large discounts on the purchase price of their

[2] Housing Benefit is already counted in measures of household income, so we do not want to include it in our measure of benefits in kind. What we estimate, therefore, is the additional subsidy to social sector tenants due to the sub-market rents charged by local authorities and housing associations.

home. This ensures that comparisons over time are not distorted by the shift from one form of subsidy (i.e. subsidised social housing) to another (i.e. subsidised owner-occupation).

Table 1: Total Value of Benefits in Kind Allocated by Service

(£billion, 2000/01 prices)	**1996/97**	**2000/01**
Health[1]:		
Total expenditure:	**44.9**	**54.1**
% allocated:	86%	84%
Education[1]:		
Total expenditure:	**40.3**	**44.2**
% allocated:	78%	78%
Housing[2]:		
Total economic subsidy:	**16.1**	**15.8**
% allocated:	100%	100%
Personal Social Services[1,3]:		
Total expenditure:	**13.1**	**14.7**
% allocated:	41%	-

Notes:

1. Total UK expenditure from Department of Health Annual Reports (for health) and H M Treasury's Public Expenditure Statistical Analyses (for education and PSS). See Annex C for breakdown of spending by service and details of which items are allocated.
2. Total value of imputed economic subsidies for social sector tenants and Right To Buy purchasers (excluding Housing Benefit, which is already included in measures of household income).
3. Includes Income Support expenditure on people living in residential care/ nursing homes.

Students living in halls of residence and older people in residential homes are a problem because they are omitted from household surveys. Benefits in kind from higher education are instead allocated to the students' parents (except for mature students), who can be identified in the FRS dataset. The justification for this is that in the absence of government subsidies, it is parents who would bear some, perhaps most, of the additional cost of educating their children. This is consistent with the principles that underlie the funding of higher education;

support towards tuition fees, for example, is based on parental incomes, not students' own incomes.

Benefits in kind from residential care are allocated to the household population using an insurance-based approach. The logic is that the government is effectively providing (partial) insurance against the risk of being admitted into residential care. The actuarial value of this insurance is equal to the probability that someone will require residential care (which depends on their age and other factors) multiplied by the amount of financial support they would receive if they were admitted into residential care (which is means-tested).

Although this approach represents a significant improvement on previous work, the apportionment of benefits is still crude in certain respects. For example, no allowance is made for variations in the unit costs of providing services by region or locality. Quite a lot of this variation would be cancelled out when aggregating across income groups. Furthermore, some of this variation is explained by differences in pay levels, which may not reflect genuine differences in the quality of services being provided. (What we are attempting to measure is the value of services to recipients, not the amount spent on them per se.) Some policies, however, are designed to favour poorer areas - for example, funding formulae that allocate more money to schools or health authorities in disadvantaged areas – and their impact will not be picked up in our analysis. Nor will the impact of the myriad of new initiatives that are targeted at poorer areas, such as Sure Start or Health Action Zones, because the beneficiaries of these schemes are not identified in our datasets. The amounts of money are small, though, relative to mainstream funding of health and education. Of course, equivalent or even higher spending, in poorer areas does not mean that service outputs or outcomes will be the same, because of the additional costs and challenges often involved in providing services in more deprived areas.

In analysing our results, we focus on the value of benefits in kind going to lower income groups relative to higher income groups. Services are described as 'pro-poor' if the amounts received are, on average, greater for individuals in lower income groups than for those in higher income groups – and 'pro-rich' if the converse is true. Differences in the demographic composition of households have a significant influence on the distribution of benefits in kind, because many services are targeted

at, or used more intensively by, particular age and gender groups. But, if education spending on lower income groups is greater simply because there are more children in lower income groups, is it still reasonable to describe the distribution as pro-poor? We think it is, although we also think it is useful to distinguish the impact of demographic factors from other factors that may contribute to a 'pro-poor' or 'pro-rich' bias.

To do this, we estimate what the distribution would look like if all individuals were allocated the average amount for other people in the same age and gender group. The difference between this age/gender based distribution and the estimated distribution of benefits in kind can be attributed to non-demographic factors. This is what we refer to as the "income effect" – that part of the distribution that is specifically related to people's position in the income distribution. Even after adjustments have been made for demographic factors, we might still expect an equitable distribution to be pro-poor, because people's needs are also affected by non-demographic factors. For example, surveys of self-reported morbidity suggest that, other things being equal, individuals in lower income groups have higher rates of ill-health.

The discussion so far implies that a pro-poor distribution of the social wage is desirable, because we have assumed that redistribution is one of the objectives of welfare services. However, there are arguments that suggest that a more pro-poor distribution is not always a good thing. Universal services, it can be argued, create a kind of "social citizenship" which is beneficial for society. Targeted services, though they are more pro-poor, can lead to the residualisation of the welfare state. Better off households may opt out of, or be ineligible for, publicly-funded services, whilst poorer households may have little choice but to continue using these services, which over time may command less public support, attract less funding, and more stigma. Thus, we need to be careful in how we interpret the results of this analysis and the assumptions we make about desirability or otherwise of any particular distribution.

III. Overall Distribution of Social Wage

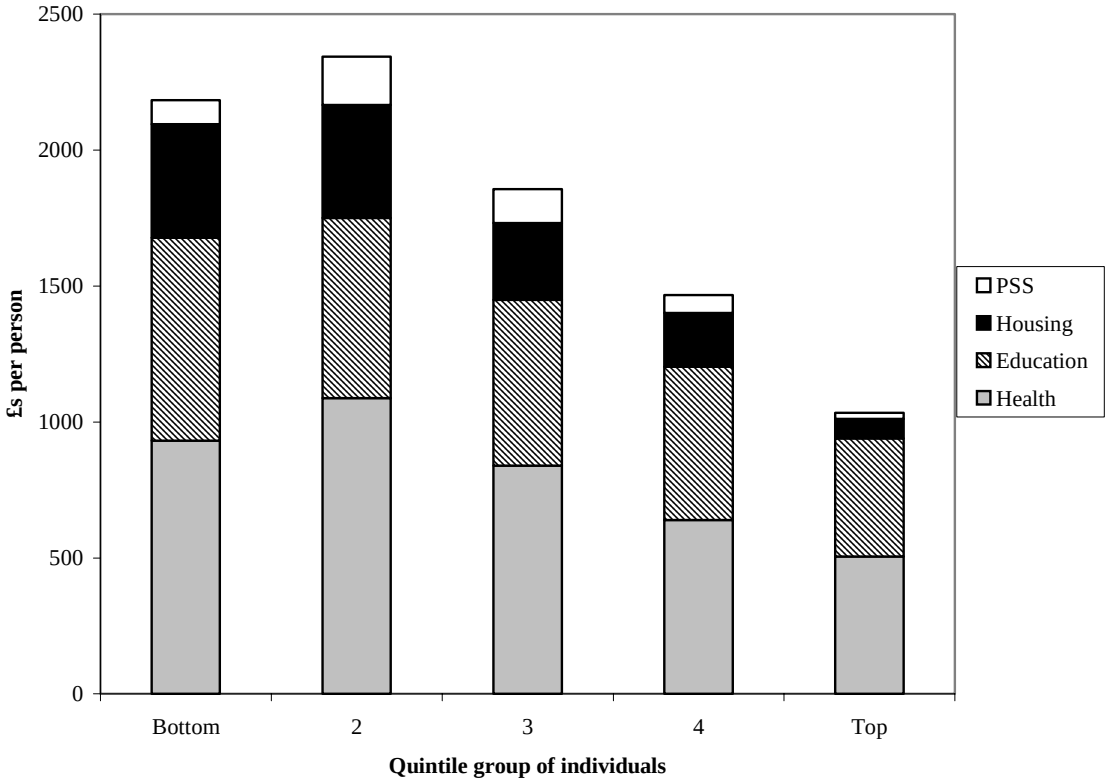
a) Current distribution

Figure 1 shows the overall distribution of benefits in kind, based on the methodology described in the previous section and Annex A (see Table 2 for the full set of estimates for 1996/7 and 2000/1). Health care and education are the major components of the social wage, although benefits in kind from social housing have a very significant distributional impact, because they are more closely targeted at poorer income groups and because our methodology generates much larger estimates than those published by the Office of National Statistics (see below). We were unable to produce estimates for personal social services (PSS) for 2000/01, so we use estimates for 1996/7 (in 2000/01 prices) in our initial analysis, in order to give an indication of their impact on the overall shape of the distribution.

As in previous analyses, the distribution is pro-poor in that lower income groups receive a greater absolute value of benefits in kind than higher income groups. There is also a small hump in the distribution. On average, individuals in the bottom two groups receive around twice the value of benefits in kind received by the top income group, 50% more than the fourth quintile, and 25% more than the middle quintile. The shape of this distribution is determined by differences in the use of welfare services between individuals in different income groups. These differences are evident across most of the services we looked at, and, with one or two exceptions, they are statistically significant and favour lower income groups. Variations in the use of individual services are discussed in more detail in Section IV.

Figure 1: Distribution of the Social Wage, 2000/01

(£s per person, 2000/01 prices)



The shape of the distribution is partly explained by demographic factors, in particular the fact that lower income groups contain a high proportion of children and pensioners, who are the most intensive users of welfare services. However, demographic factors are only partly responsible for the pro-poor distribution of benefits in kind or for the hump (see Table 3). The "income effect" – once the effect of demographic factors has been netted off - is positive for the bottom two quintiles and negative for the top two quintiles – and is at least as large as the "demographic effect". Each percentage point is worth around £80 per year per person, so the "income effect" is substantive – the 7.2 percentage point differential between the bottom and top quintile groups in 2000/01 is worth an extra £600 per person. Changes in the pro-poor bias between 1996/7 and 2000/1 are discussed later in this section.

Table 2: Distribution of Benefits in Kind, 1996/97-2000/01

(£ per person, 2000/01 prices, rounded to nearest £10)

	1996/97	2000/01	Change (1996/7-2000/01)
Totals (excl. PSS)			
Bottom	1840	2100	+260
2	1950	2170	+220
3	1610	1730	+120
4	1270	1400	+130
Top	960	1010	+50
Average	**1530**	**1680**	**+150**
Health			
Bottom	760	930	+170
2	900	1090	+190
3	740	840	+100
4	580	640	+60
Top	430	510	+80
Average	**680**	**800**	**+120**
Education			
Bottom	680	750	+70
2	560	660	+100
3	600	610	+10
4	500	560	+60
Top	450	430	-20
Average	**560**	**600**	**+40**
Housing			
Bottom	400	420	+20
2	490	420	-70
3	270	280	+10
4	190	200	+10
Top	80	70	-10
Average	**290**	**280**	**-10**
Personal Social Services			
Bottom	90	-	-
2	180	-	-
3	120	-	-
4	70	-	-
Top	20	-	-
Average	**100**	-	-

Table 3: Changing Distribution of Social Wage, 1996/7-2000/01

(excluding personal social services)

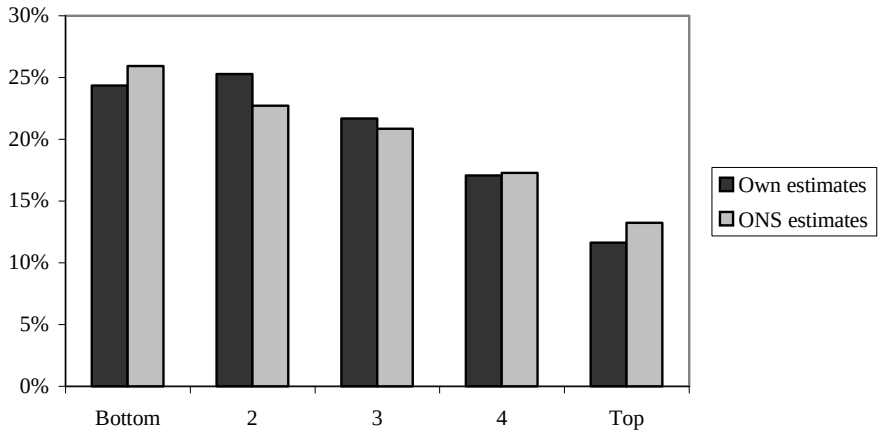
	Actual share received (1)	Share received if distribution were based solely on age and gender (2)	"Demographic effect" (2) less 20%	"Income effect" (1) – (2)
2000/01				
Bottom	24.9%	22.5%	+2.5%	+2.4%
2	25.8%	22.1%	+2.1%	+3.7%
3	20.6%	20.2%	+0.2%	+0.4%
4	16.7%	18.4%	-1.6%	-1.7%
Top	12.0%	16.8%	-3.2%	-4.8%
1996/97				
Bottom	24.1%	22.5%	+2.5%	+1.6%
2	25.6%	21.9%	+1.9%	+3.7%
3	21.1%	20.3%	+0.3%	+0.7%
4	16.6%	18.4%	-1.6%	-1.9%
Top	12.6%	16.8%	-3.2%	-4.1%
Change: 1996/97-2000/01				
Bottom	+0.9%	0.0%		+0.8%
2	+0.1%	+0.2%		0.0%
3	-0.5%	-0.1%		-0.3%
4	-0.0%	0.0%		+0.2%
Top	-0.5%	0.0%		-0.7%

Figures 2a-c presents our estimates alongside those published by the Office of National Statistics. This is done on a consistent basis, using households, rather than individuals, as the unit of analysis. We compare the shares received by different income groups, because we are mainly interested in the shape of the distribution, rather than the absolute amounts.

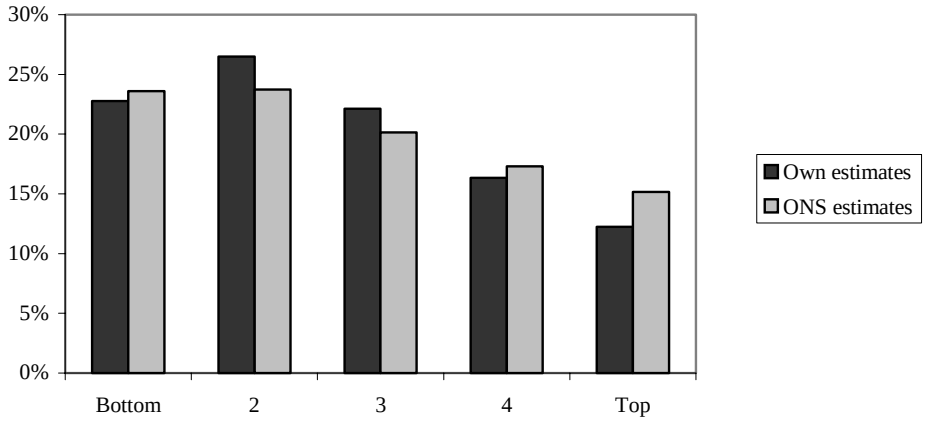
Figure 2: Comparison with ONS Estimates, 2000/01

(Share of benefits in kind received by each income group)

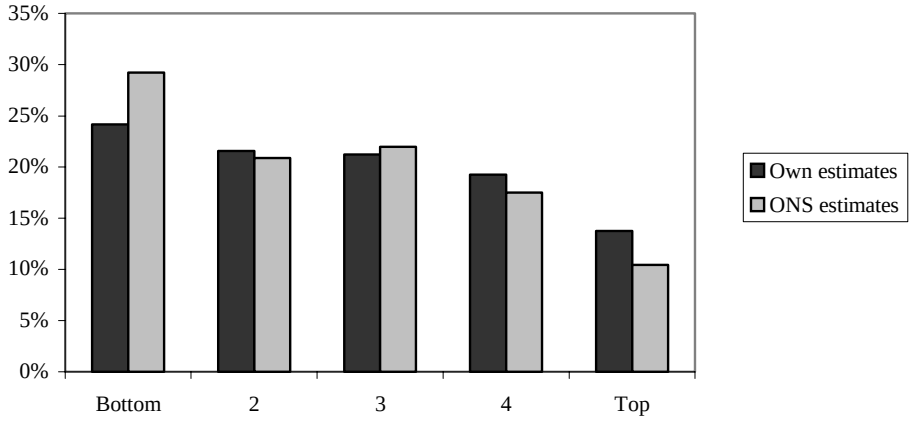
(a) Total



(b) Health



(c) Education

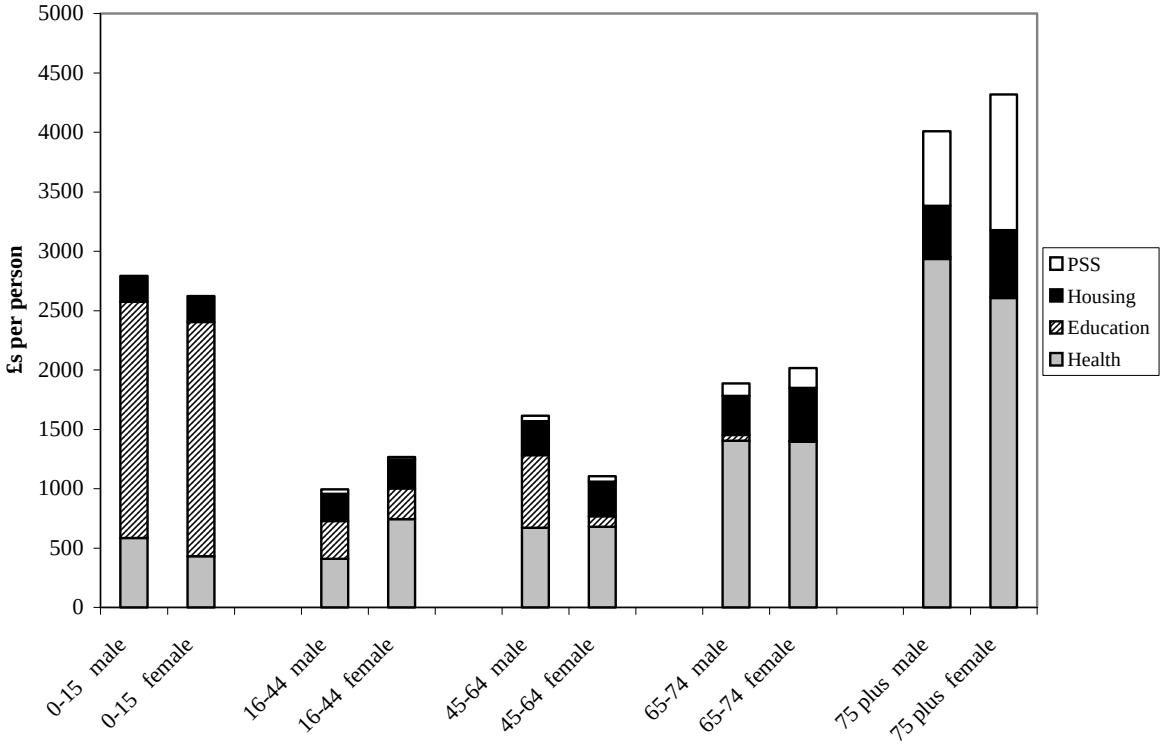


The overall distribution is broadly comparable, although the ONS allocate a larger share of benefits in kind to the top and bottom quintile groups and smaller shares to the second and third quintile groups (see Figure 2a). These differences represent the net effect of taking into account more fully the impact of people's incomes and other socio-economic characteristics on their use of welfare services, as well as other methodological differences (see below). This comparison hides larger differences for individual services (see Figures 2b and 2c). In general, their distribution of health care is less pro-poor, which is what we would expect because they only take into account differences in spending that are related to age and gender. On the other hand, their distribution of education is more pro-poor, largely because they allocate spending on higher education to students, whereas we allocate them to their parents (who tend to be much higher up the income distribution). Finally, their estimates of housing benefits in kind are much smaller than ours – only £40 per household, on average, compared to £650 per household - because we use a very different approach to measuring the value of social housing. Housing has very little impact on their estimates, but significantly increases the pro-poor bias of our distribution.

Figures 3-5 show how our estimates of benefits in kind vary with other important socio-demographic characteristics, such as age, family type, and tenure. These are interesting in themselves, but also help towards understanding the distribution between income groups.

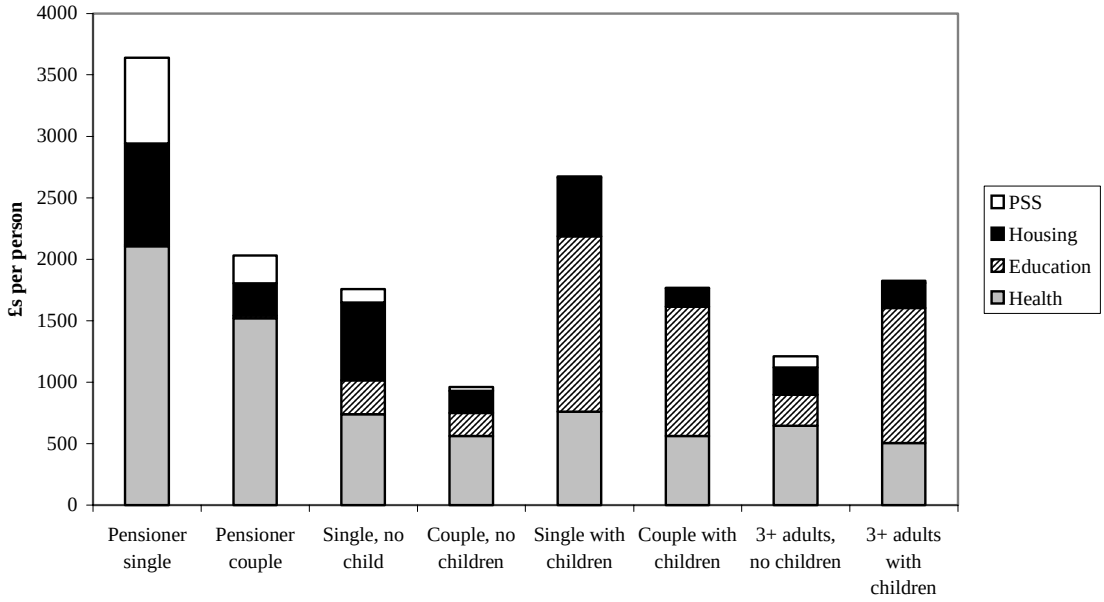
The distribution by age is U-shaped (see Figure 3). Children receive the majority of benefits from education, whilst older people benefit most from health care and personal social services. There are also some differences by gender. Young women use more health care, which is mostly linked to childbirth, whilst older women receive more social care, because they are more likely to be living alone. Middle-aged men receive more only because, as heads of household, they are allocated benefits in kind from higher education on behalf of their children.

Figure 3: Distribution by Age Group, 2000/01



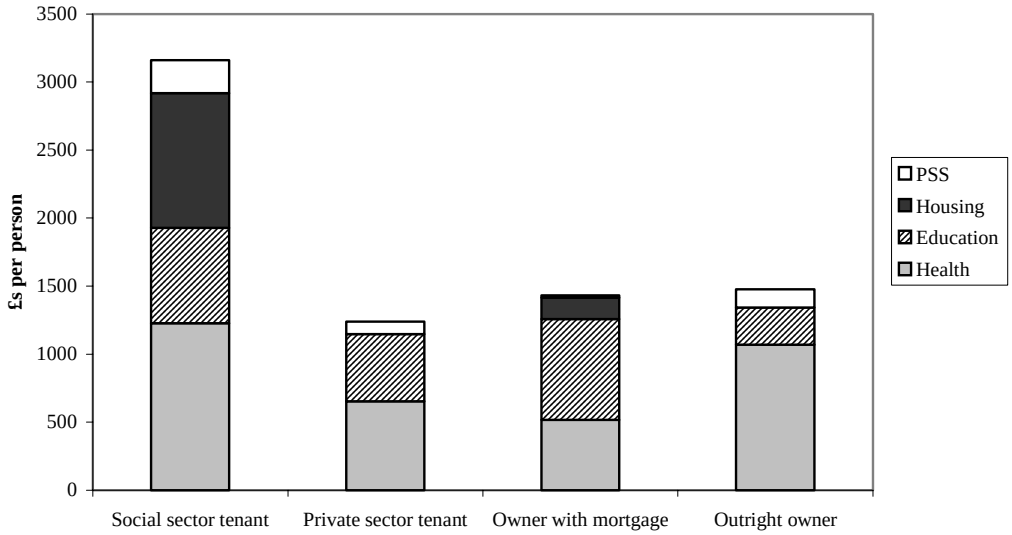
Single pensioners and single parent families receive the greatest benefits in kind (see Figure 4). Single pensioners do better than pensioner couples, because they are older and poorer, on average, and are more likely to be in social housing. Single parents do well, because they have the highest ratio of children and because they, too, are more likely to be poor and in social housing. Couples without children and other adult-only households do least well for the opposite reasons.

Figure 4: Distribution by Household Type, 2000/01



Not surprisingly, social sector tenants receive the highest social wage, partly because they receive most of the housing benefits in kind, but also because they include a disproportionate number of children and very old people (see Figure 5). Owner-occupiers receive some housing benefits in kind through the Right To Buy scheme.

Figure 5: Distribution by Tenure, 2000/01



b) Changes over time

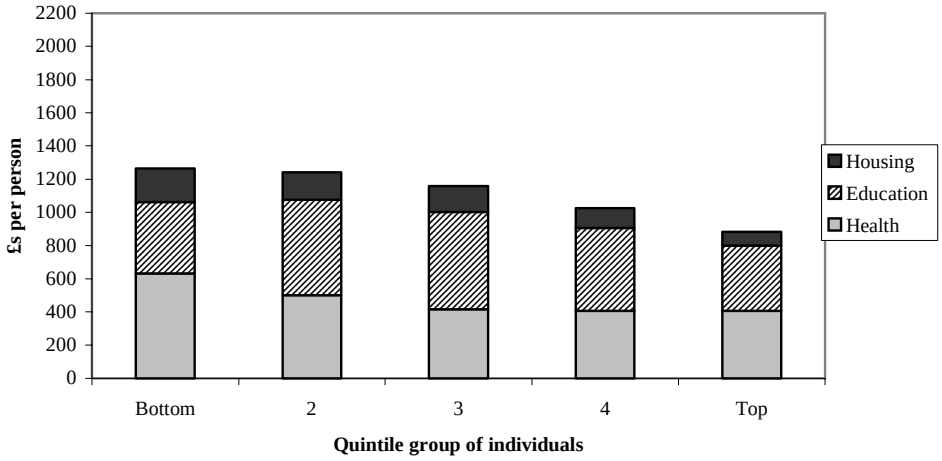
Changes in the distribution of the social wage are examined both over the long-term – using previous estimates going back to 1979 – and over the more recent period covering this Labour Government's first term in office. To ensure greater consistency over the longer 'historical' series, we re-computed the value of benefits in kind for recent years using a close approximation to the methodology used in our previous research, including a different approach to estimating the value of housing benefits in kind. We also exclude personal social services, because we do not have estimates for 2000/1. For 1993/4, we were able to make a direct comparison with our previous estimates and the match is very good. (We would not expect a perfect match, in any case, because we are using a different dataset[3].) The results for the period 1979-2000/01 are shown in Figure 6 (in 2000/01 prices).

There has been a substantial growth in the value of the social wage in real terms – an increase of 48%, on average, across the whole population. Lower income groups have benefited more than higher income groups – a rise of more than 60% for the bottom two quintile groups, but only 36% for the fourth quintile and just over 20% for the top quintile. The dispersion over time between lower and higher income groups is shown more clearly in Figure 7.

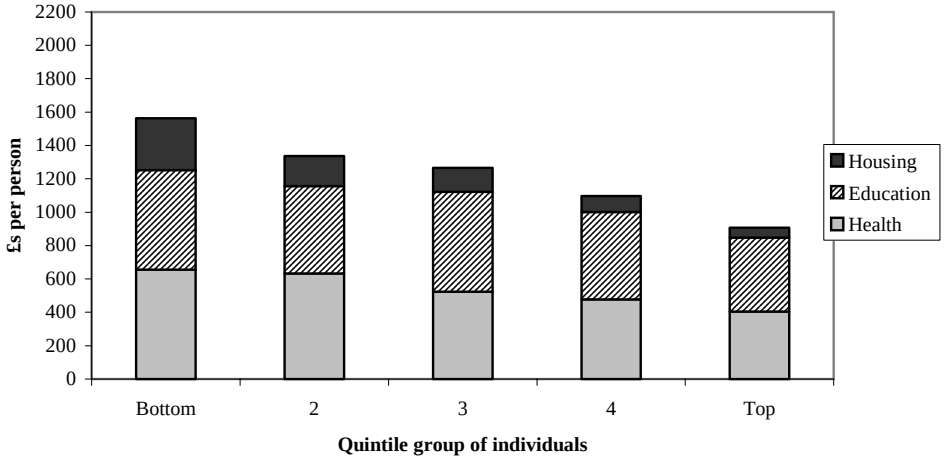
[3] The base dataset for the earlier work (Sefton, 1997) was the Family Expenditure Survey, as opposed to the Family Resources Survey.

Figure 6: Historical Changes in Distribution of Social Wage[1]

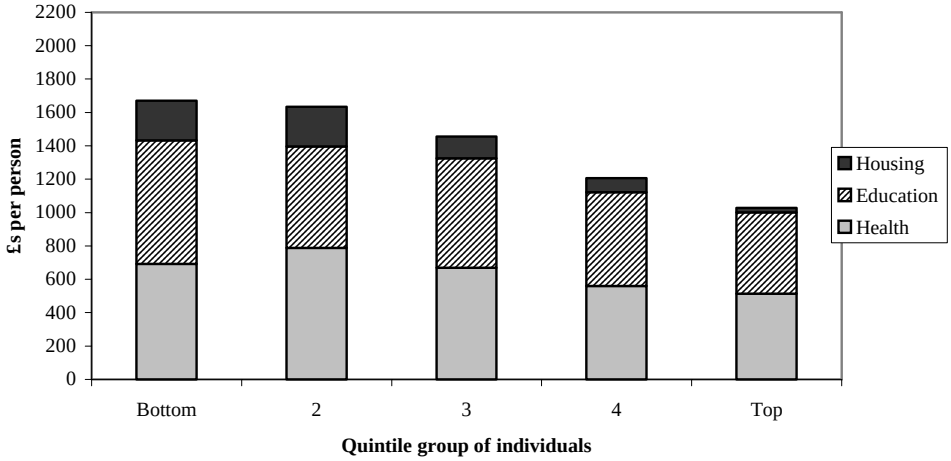
1979



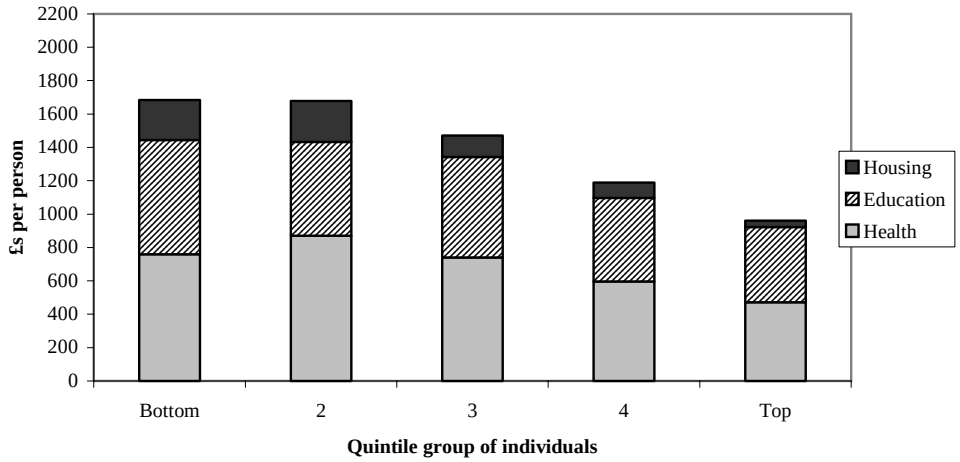
1987



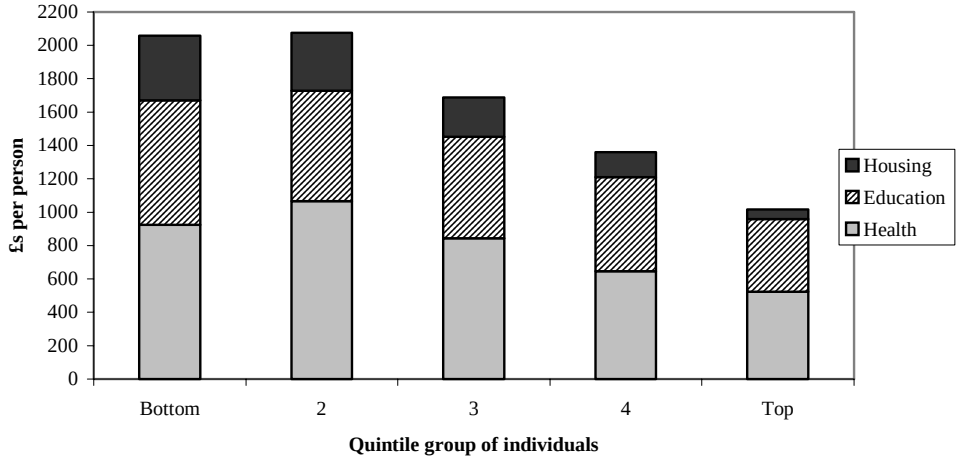
1993



1996/7



2000/01



Note:

Figures for 1979, 1987, and 1993 are from Table 2.2 of Sefton (1997). These are converted to 2000/01 prices, using the GDP deflator (at market prices).

Figure 7: Increase in Social Wage by Quintile Group: 1979-2000/01

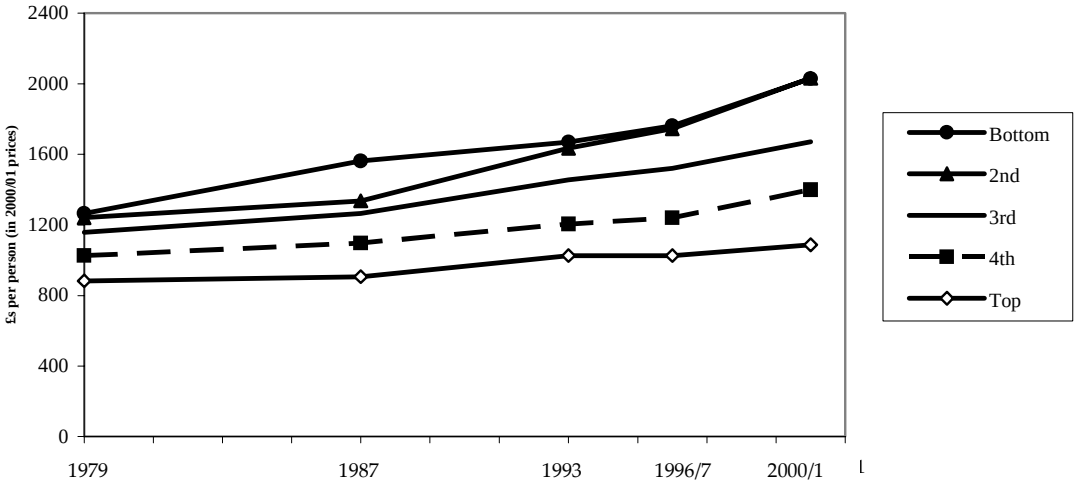
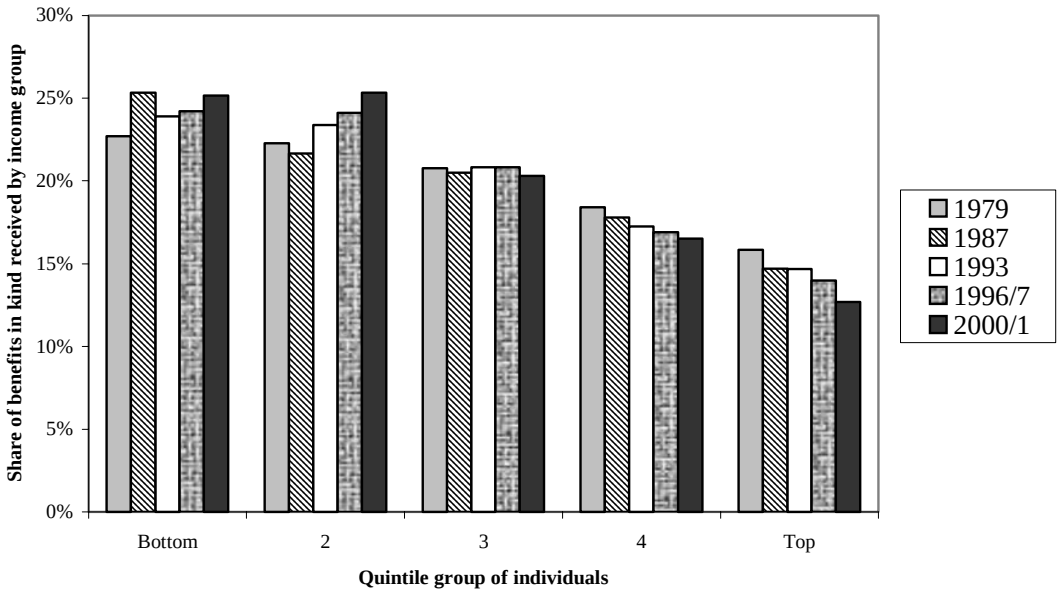


Figure 8 shows how the share of the social wage going to different income groups has changed over this period, highlighting the incremental shift in favour of lower income groups. This increase in the overall 'pro-poor' bias cannot be accounted for by demographic factors. Whilst children have become more concentrated in the bottom half of the income distribution, there are now more pensioners in higher income groups. Other things being equal, the net effect of these demographic changes would have been to increase the share of the social wage going to higher income groups (i.e. the opposite of what has happened). Other possible explanations are discussed later in this paper and summarised in Section V.

Figure 8: Share of Social Wage by Income Group: 1979-2000/01



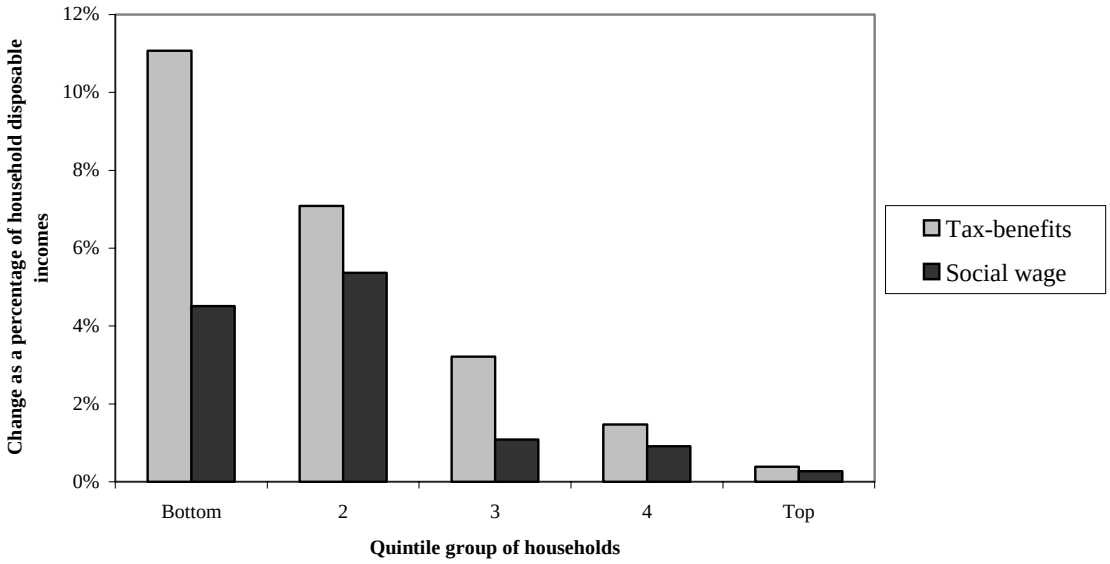
A more detailed analysis is possible over the period since 1996/7, using data only available in recent surveys and a different approach to estimating housing benefits in kind. As in previous periods, there is an increase in the value of the social wage in real terms, which is greatest for lower income groups. This leads to a small, but significant, increase in the pro-poor bias: between 1996/7 and 2000/1, the share of the social wage received by the bottom income group rose by 0.8 percentage points and the share of the top income group fell by 0.7 percentage points – none of which was due to demographic factors (see Table 3).

To help put these changes into context, it is useful to make a comparison with changes in the tax/benefit system over the same period – the other major instrument for redistribution. We use estimates produced by the Institute for Fiscal Studies as part of their briefing notes for the last election (Clark, Myck, and Smith, 2001). These show the net effect of major changes in the tax/benefit system that directly affected individuals or households, including changes in income tax, VAT, excise duties, tax credits, and benefits, but excluding changes in business taxation. Changes are calculated as a percentage of the mean disposable income of households in each income group. Their analysis covers the period from 1997/8 to June 2001, which is slightly shorter than the period covered by our analysis of the social wage, although most of the increase in spending on public services under this Government occurred after 1997/8. Rather than comparing the situation of income groups at

different points in time, they simulate the impact of tax/benefit changes for a static population – as it was in 1997/8 – in order to isolate the effect of policy change from other changes in the socio-economic circumstances of households. Thus, our estimates are not directly comparable, but the results are indicative.

Changes in the tax/benefit system and the social wage were both progressive over this period: households in lower income groups benefited more in percentage terms than households in higher income groups (see Figure 9). The impact of changes in the social wage is smaller and slightly less progressive than changes in taxes and benefits, but the overall effect is significant and reinforces fiscal reforms over the same period.

Figure 9: Distributional impact of major fiscal reforms



c) Impact on inequality

A measure of final income can be calculated by adding the value of benefits in kind (for whole households) to the official Household Below Average Income (HBAI) measure of disposable income. (This measure of "final" income is different from the ONS's definition of final income in that we do not deduct indirect taxes.) On average, the social wage makes up around a sixth of households' final incomes. However, it is a much greater proportion of final incomes for households lower down the income distribution – around 40% for those in the bottom quintile,

compared to 20% for the middle quintile, and just 5% for those in the top quintile.

Even if the value of the social wage were the same, on average, for all income groups, it would still have an equalising impact on final incomes. (To have no effect at all, benefits in kind would have to be as unequally distributed as cash incomes.) One way to assess the equalising impact of the social wage is to look at the share of income received by different income groups before and after the addition of the social wage. The bottom three quintile groups receive a greater share of final incomes than of cash incomes and vice-versa for the top two quintile groups (see Table 4).

Between 1979-1993, there is evidence that the 'equalising impact' of the social wage increased. Over that period, it is estimated that changes in the distribution of the social wage reduced the growth in inequality, as measured by the Gini coefficient, by around a fifth (Sefton, 1997). Between 1996/7-2000/01, changes in the distribution of final incomes have been virtually the same as changes in the distribution of cash incomes. The social wage reduces inequality in both years by around the same amount; hence, the equalising impact of the social wage has remained broadly constant over this more recent period. On the one hand, the social wage has become more pro-poor since 1996/7, which, other things being equal, would have increased the equalising impact of the social wage. On the other hand, the average value of households' social wage has grown more slowly than their cash incomes[4] - 8% in real terms, compared to 12%. These two factors more or less cancelled each other out over this period.

[4] Whilst health care spending rose by around 20% in real terms, the value of housing benefits in kind has fallen slightly in real terms. Another reason the average social wage per household did not grow faster is that the average size of households fell over this period, so there were fewer potential service users in each household in 2000/1 than in 1996/7.

Table 4: Equalising Impact of Social Wage, 1996/97-2000/01

(Shares received by each income group)

	1996/7	2000/01	*Change:*
Cash incomes[1]			
Bottom	7.6%	7.1%	*-0.5%*
2	11.3%	11.4%	*+0.1%*
3	17.0%	16.7%	*-0.3%*
4	23.6%	22.7%	*-0.9%*
Top	40.6%	42.1%	*+1.5%*
Final incomes			
Bottom	10.4%	9.9%	*-0.5%*
2	13.4%	13.7%	*+0.3%*
3	17.9%	17.5%	*-0.4%*
4	22.5%	21.8%	*-0.7%*
Top	35.8%	37.1%	*+1.3%*
Equalising impact of social wage[2]			
Bottom	2.8%	2.8%	*0.0%*
2	2.1%	2.3%	*-0.2%*
3	0.9%	0.8%	*+0.1%*
4	-1.1%	-0.9%	*-0.2%*
Top	-4.8%	-5.0%	*+0.2%*

Notes:

1. HBAI income measure, before housing costs.
2. Difference between the share of final incomes received and the share of cash incomes received. Positive numbers for lower income groups (and negative numbers for higher income groups) indicate that the social wage is having an equalising impact. The final column shows how this equalising impact has changed over this period.

IV. Analysis of Individual Services

This section examines the distribution of benefits in kind for individual services, disaggregating the results further, and seeking to explain the current distribution and any changes since 1996/7. This is aimed at readers with a particular interest in one or more of the major services.

The final section summarises the key findings for those who are looking for a broader overview.

a) Health

Health care is the largest component of the social wage. In 2000/01, the UK spent an average of £950 per person on all health care services, of which we allocate around £800. Since 1996/7, expenditure has risen by around 20% in real terms.

UNDERSTANDING THE DISTRIBUTION

Table 5 shows the overall distribution of health care benefits in kind for the whole population and by age group. The overall distribution of health care benefits in kind is pro-poor, but with a clear hump in the distribution. Those in the second quintile group receive more than those in the bottom income group, but both groups receive substantially more than higher income groups. This pro-poor bias appears consistently across different health care services (see Figure 10).

Figure 10: Distribution of Benefits for Major Health Care Services

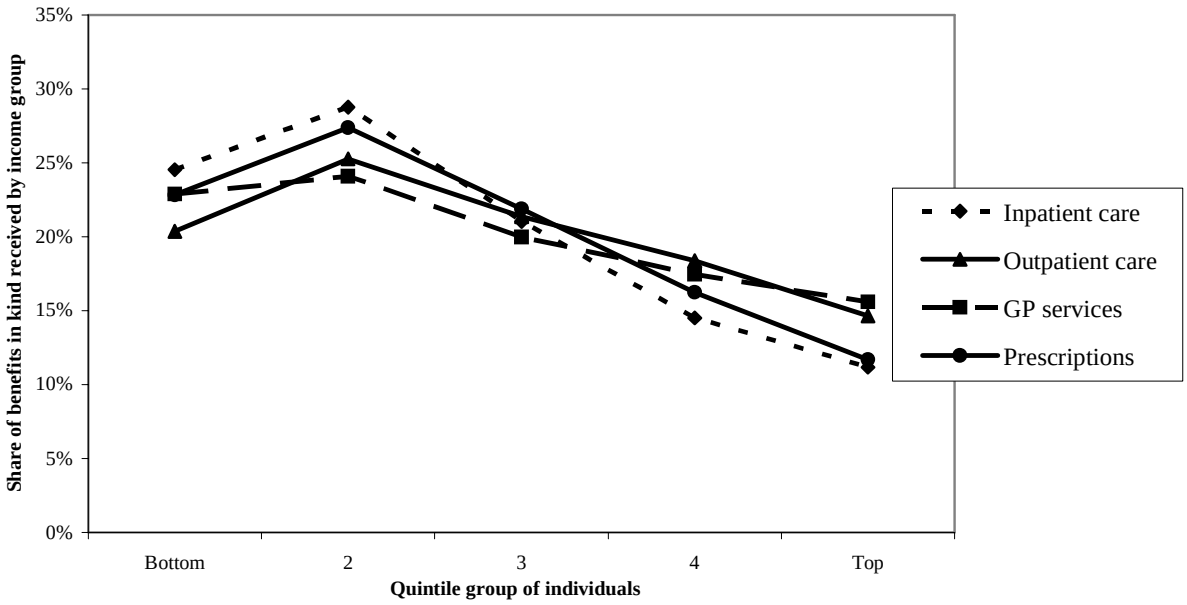


Table 5: Distribution of Health Care Benefits in Kind, 1996/7-2000/01[1]

(£ per person, 2000/01 prices, rounded to nearest £10)

	1996/7	2000/01	Change: (1996/7-2000/1)
All persons			
Bottom	760	930	+170
2	900	1090	+190
3	740	840	+100
4	580	640	+60
Top	430	510	+80
Average	**680**	**800**	**+120**
Pensioners			
Bottom	1560	1870	+310
2	1790	2160	+370
3	1910	2100	+190
4	1810	1970	+160
Top	1090	1510	+420
Average	**1690**	**1990**	**+300**
Working age adults			
Bottom	670	810	+140
2	680	850	+170
3	560	640	+80
4	440	500	+60
Top	370	420	+50
Average	**520**	**620**	**+100**
Children			
Bottom	380	480	+100
2	480	600	+120
3	430	500	+70
4	450	460	+10
Top	460	500	+40
Average	**430**	**510**	**+80**

Variations in the use of health care services by income group are shown in more detail in Table 6. The confidence intervals for our

estimates are relatively narrow and, therefore, differences between the bottom quintile and other income groups are statistically significant in most cases. They always favour the bottom income group over the top income group, although individuals in the second quintile group are often more likely to use these services – hence the hump-shaped distribution of health care benefits in kind. We also explored differences in the use of services among those with a long-standing and limiting illness (i.e. ill and poor versus ill and rich). This is discussed a little later on.

Table 6: Use of Health Care Services by Income Group, 2000/01

% of individuals using each service and whether significantly different to bottom quintile	Income group (quintile groups of individuals)				
	Bottom	**2**	**3**	**4**	**Top**
NHS in-patient stay[1] (in last year)					
- All persons	8%	10%**	7%	4%**	4%**
- Long-term ill[3]	20%	22%*	19%	12%**	11%**
NHS out-patient visit[1] (in last 3 mths)					
- All persons	13%	18%**	15%*	14%	12%*
- Long-term ill	27%	34%**	34%**	32%*	32%*
GP consultation[1] (in last 2 wks)					
- All persons	17%	18%*	15%**	13%**	12%**
- Long-term ill	32%	33%	29%	24%**	24%**
Prescription received[2] (in last 4 wks)					
- All persons	33%	36%**	31%**	26%**	24%**
- Long-term ill	66%	70%**	69%*	66%	58%**

Notes:

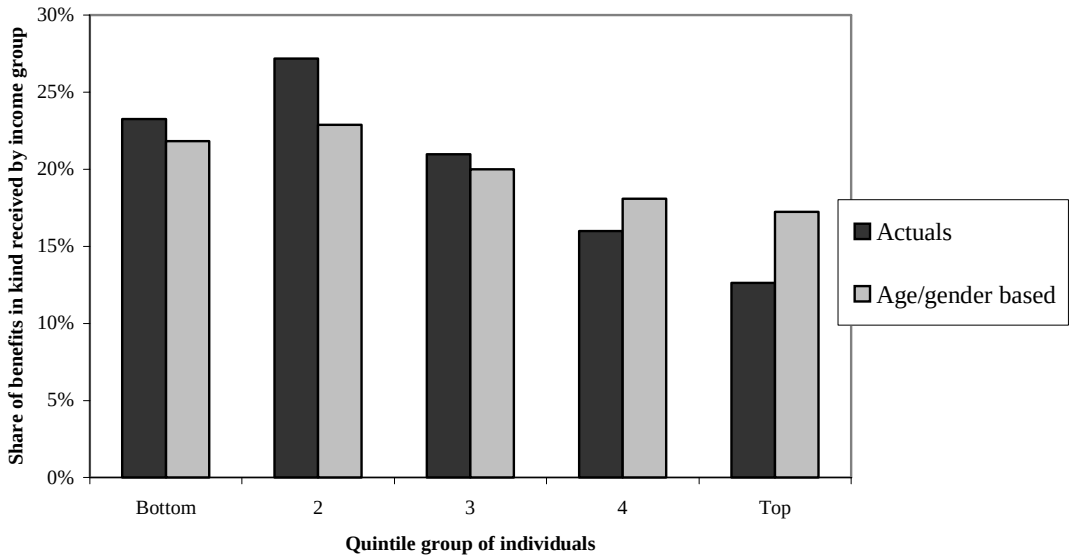
** significantly different to bottom quintile at 1% level, * significantly different at 10% level.

1. Based on General Household Survey (GHS).
2. Based on Family Resources Survey (FHS).
3. Those who report having a long-standing and limiting illness in response to standardised questions used in the FHS, GHS and other large-scale household surveys.

Part of the overall pro-poor bias can be explained by differences in the demographic composition of income groups. Lower income groups contain a higher proportion of older people, who are the most intensive users of health care services. The lightly shaded columns in Figure 11 shows how the distribution would look if spending were allocated on the basis of age and gender alone (i.e. if everyone received the average amount for their age/gender group). The difference between this and the actual distribution shows the impact of income and other socio-economic characteristics on people's use of NHS services. There is a clear and substantial pro-poor bias in the distribution over and above the impact of demographic factors; this is what we referred to earlier as the "income effect".

Figure 11: Distribution of Health Benefits in Kind, 2000/01

(share received by each income group)



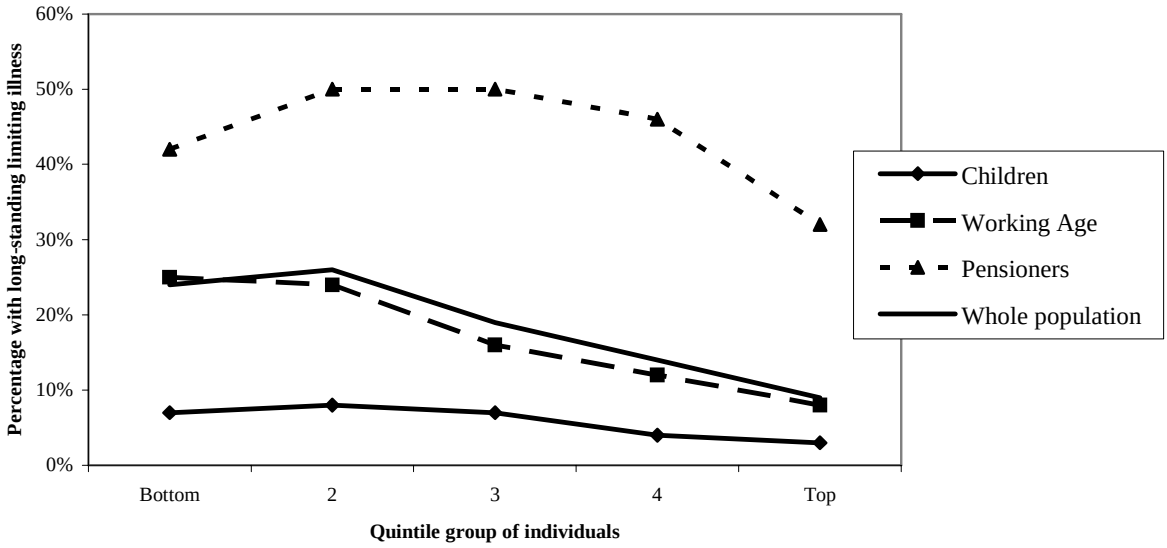
The distribution of benefits varies markedly between age groups (see Table 5). Among pensioners, the distribution is hump-shaped with those in middle income groups making the greatest use of health care services. Among the working age population, there is a fairly strong pro-poor gradient and among children, the distribution is flat.

Differential use of private health care services only explains a small part of these differences between income groups and this effect is concentrated at the top end of the income distribution. Differences in self-reported morbidity are much more important. People with long-standing and limiting illness make up around a fifth of the total population, but account for over half of total health care expenditure. Their position in the income distribution, therefore, has a major impact on the pattern of health care spending.

Within the pensioner population, those with a long-standing limiting illness are concentrated in middle income groups, whilst among the working age population and children they are concentrated in lower income groups - though in the case of children, they are too few in number to have a significant impact on the distribution (see Figure 12).

Figure 12: Self-reported morbidity by Income Group, 2000/1

(% of group reporting a long-standing and limiting illness)



This helps to explain the overall shape of the distribution, but not the extent of the pro-poor bias or the size of the hump. Focusing only on those with a long-standing and limiting illness, use of health care services is often highest for those in the second and third quintiles and lowest for those in the top quintile group (see Table 6). One possible explanation is that people in middle income groups may have more severe conditions that require more treatment. In addition, those in the bottom quintile group may be less able or willing to access health care

services (for a given level of need), which might explain the hump in the distribution. The same pattern is evident in the distribution of benefits in kind for non-residential social care services.

EXPLAINING CHANGES

All income groups have benefited from increased public expenditure on health care, but the share going to lower income groups has risen over this period, leading to an increase in the pro-poor bias (see Table 7). This cannot be accounted for by demographic effects, which were relatively small and worked more in favour of higher income groups. Some of these changes may be accounted for by changes in patterns of morbidity over this period. Reported incidence of long-standing limiting illness rose by 2 percentage points, on average, between 1996/7 and 2000/01, but by 6 percentage points for those in the bottom quintile group.

Table 7: Changing Distribution of Health Care Benefits in Kind, 1996/7-2000/01

	Actual share received (1)	Share received if distribution were based solely on age and gender (2)	Income effect (1) – (2)
2000/01			
Bottom	23.2%	21.8%	+1.4%
2	27.2%	22.9%	+4.3%
3	21.0%	20.0%	+1.0%
4	16.0%	18.1%	-2.1%
Top	12.6%	17.2%	-4.6%
1996/97			
Bottom	22.2%	21.7%	+0.5%
2	26.5%	23.5%	+3.0%
3	21.8%	20.0%	+1.7%
4	16.9%	17.9%	-1.0%
Top	12.7%	16.9%	-4.2%
Change: 1996/97-2000/01			
Bottom	+1.0%	+0.1%	+0.9%
2	+0.7%	-0.6%	+1.3%
3	-0.8%	0.0%	-0.7%
4	-0.9%	+0.2%	-1.1%
Top	-0.1%	+0.3%	-0.4%

b) Education

Education is the second largest component of the social wage. In 2000/01, the UK spent around £800 per person on schools, further, and higher education. We allocate around 80% of this. Since 1996/7, expenditure on education has risen by around 10% in real terms.

UNDERSTANDING THE DISTRIBUTION

Table 8 shows the overall distribution of education benefits in kind and a breakdown by level of education. The distribution of benefits in kind from education is consistently pro-poor. Distribution is dominated by spending on schools, which accounts for over half of all spending on education and is strongly pro-poor. Spending on further education and post-compulsory schooling is also pro-poor, though less so. Spending on higher education is pro-rich if the benefits are allocated to their parents, although this result is very sensitive to assumptions about the impact of supporting dependent students on their parents' standard of living (see below).

The demographic composition of income groups explains a large part of the pro-poor bias in spending. The bottom quintile group contains around twice as many children as the top quintile, which explains most of the variation in school attendance between income groups (see Table 9). Among children aged 4-15, attendance at state schools is close to 100% for all income groups, except for top income group who are much more likely to educate their children privately.

Table 8: Distribution of Education Benefits in Kind, 1996/7-2000/01

(£ per person, 2000/01 prices Rounded to nearest £10)

	1996/7	2000/01	Change: (1996/7-2000/1)
Total			
Bottom	680	750	+70
2	560	660	+100
3	600	610	+10
4	500	560	+60
Top	450	430	-20
Average	**560**	**600**	**+40**
Schools (under 16)			
Bottom	500	540	+40
2	410	490	+80
3	390	420	+30
4	270	320	+50
Top	170	210	+40
Average	**350**	**400**	**+50**
Post-compulsory schooling and FE			
Bottom	90	100	+10
2	70	90	-20
3	80	80	0
4	80	90	-10
Top	50	60	+10
Average	**70**	**80**	**+10**
Higher education			
Bottom	80	100	+20
2	80	80	0
3	120	100	-20
4	140	140	0
Top	230	170	-50
Average	**130**	**120**	**-10**

Table 9: Use of Education Services by Income Group, 2000/01

% of individuals using each service and whether significantly different from use by bottom quintile	Income group (quintile groups of individuals) Bottom	2	3	3	Top
State school (primary/secondary/special)[1]					
- All persons	19%	17%**	5%**	11%**	8%**
- Children aged 4-15	95%	94%	93%*	92%**	77%**
Post-16 state education or further education (full-time students only)[1]					
- All persons	2.0%	2.0%	1.8%	1.9%	1.3%**
- Young people aged 16-17	59%	68%**	66%*	70%**	70%**
Higher education[1]					
- All persons	2.0%	1.5%**	2.1%	3.0%**	3.4%**
- All university-age children[2]	24%	20%*	22%	27%*	36%**
- University-age children living at home[3]	42%	34%**	31%**	39%	50%**

Notes:

** significantly different to bottom quintile at 1% level, * significantly different at 10% level

1. Based on Family Resources Survey.
2. All young people aged 18-24.
3. Only those 18-24 year olds who are living with one or both parents.

The distribution of further education and post-compulsory schooling is fairly flat, except for a dip at the top of the income distribution. The bottom quintile group contains more young people than other income groups, but they are less likely to stay on in full-time education. Young people from the top quintile group are the most likely to stay on, but there are fewer of them and they are also more likely to be in private schools and less likely to be in special education, which is roughly four times more expensive than mainstream secondary or further education.

Higher education is one of the few public services that appears to favour the richest households, if, as in this analysis, the benefits to dependent students are allocated to the parental household. The majority of funding for higher education is in the form of grants to

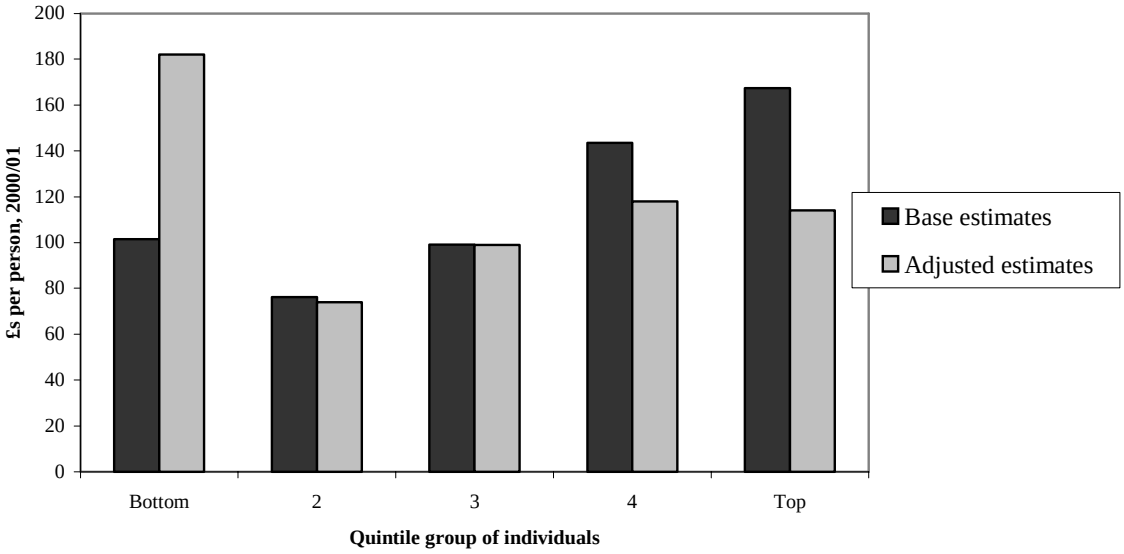
universities, the benefits of which we assume are spread evenly between students from all backgrounds. Households in the top quintile group are more likely to have children at university, so they benefit disproportionately from this source of funding. This pro-rich bias is partly offset by the student support system (student loans and contributions towards tuition fees), which are both means-tested, at least in part (on the basis of parental income in the case of dependent students).

This picture changes substantially if differences in the demographic composition of income groups are taken into account. Parents with university-age children are found disproportionately in higher income groups and this appears to explain much of the pro-rich bias in the distribution (see Table 9). The implication is that demographic factors, rather than differential access to higher education, are at least partly responsible for the pro-rich bias (although this does not alter the fact that it is the richest households that are benefiting most from public expenditure on higher education).

Arguably, however, some of these households are not as well off as their position in the income distribution implies, because the income measure we are using to rank households does not allow for the cost of supporting children who are studying away from home. If we are going to allocate to parents the value of government subsidies to their children, then there is a good case for adjusting their incomes to reflect the additional costs to their parents of supporting these children – we do this by deducting the estimated maintenance costs for each full-time student living away from home[5]. (The costs of supporting students living at home are already taken into account in the equivalence scale.) When households are re-ranked using this adjusted income measure, the distribution of benefits in kind from higher education becomes much more pro-poor (see Figure 13), showing how sensitive the results can be to this kind of adjustment.

[5] As a proxy for the maintenance costs of a full-time student, we deduct the maximum student loan for students living away from home.

Figure 13: Higher Education Benefits in Kind - Sensitivity Analysis



EXPLAINING CHANGES

The distribution of benefits in kind from schools appears to be very stable over time. We assume that total expenditure in each sector is evenly distributed between all pupils, so the impact of any re-allocation of resources within these sectors, for example between primary or secondary schools in richer and poorer areas, would not be captured in this analysis.

The distribution of spending on post-compulsory schooling and further education, has also been relatively stable, although there has been a small pro-poor shift. Participation rates have risen for all income groups, but more so for those in lower income groups, who appear to be catching up with those in higher income groups.

The greatest changes have been in the funding of higher education. Firstly, there has been a substantial cut in the level of student support. This affected all students – poorer students, for example, lost their right to maintenance payments, which have been replaced by a less generous system of loans[6]. However, means-tested tuition fees favoured poorer students. Overall, student support is more pro-poor than it was in 1996/7, but the amounts involved are smaller. Grants to higher

[6] The public subsidy element of student loans is assumed to be 50% of the value of loans made in any given year, based on estimates in Barr (2002).

education institutions have become the dominant source of funding and these are not means-tested. Other things being equal, this would have created a stronger pro-rich bias in the funding of higher education. However, at the same time, there appears to have been a reduction in the proportion of students coming from the top income group and a corresponding increase from other income groups, perhaps reflecting efforts to widen access to higher education to young people from lower socio-economic groups. The net effect is that higher education has become less pro-rich over this period, though most income groups have experienced little increase, or even a fall, in the value of benefits in kind (in real terms).

The combined effect of these changes in analysed in Table 10. In both 1996/7 and 2000/01, lower income groups received a disproportionate share of the benefits in kind from education. But, in 1996/7, they received marginally less than would be expected on the basis of their demographic composition, whilst the top income group received more (see final column). By 2000/1 this situation had been reversed – the "income effect" is now positive for the two bottom quintiles and negative for the top income group. This suggests there has been a small pro-poor shift in the overall distribution over this period.

Table 10: Changing Distribution of Education Benefits in Kind, 1996/7-2000/01

	Actual share received (1)	Share received if distribution were based solely on age and gender (2)	Income effect (1) – (2)
2000/01			
Bottom	24.8%	24.1%	+0.7%
2	21.9%	21.4%	+0.6%
3	20.2%	20.6%	-0.4%
4	18.7%	18.5%	+0.2%
Top	14.4%	15.4%	-1.0%
1996/97			
Bottom	24.5%	24.6%	-0.1%
2	20.1%	20.2%	-0.2%
3	21.5%	20.9%	+0.6%
4	17.9%	18.7%	-0.9%
Top	16.1%	15.6%	+0.5%
Change: 1996/97-2000/01			
Bottom	+0.3%	-0.5%	+0.8%
2	+1.8%	+1.2%	+0.6%
3	-1.3%	-0.3%	-1.0%
4	+0.8%	-0.2%	+1.0%
Top	-1.7%	-0.2%	-1.5%

c) Housing

UNDERSTANDING THE DISTRIBUTION

Table 11 shows our estimates of the benefits in kind from housing. In 2000/01, these are worth around £1,000 for each social sector tenant or more than £2,000 per household in the social rented sector.

Table 11: Distribution of Housing Benefits in Kind, 1996/7-2000/01

(£ per person, 2000/01 prices, rounded to nearest £10)

	1996/7	2000/01	Change: (1996/7-2000/1)
All housing			
Bottom	400	420	+20
2	490	420	-70
3	270	280	+10
4	190	200	+10
Top	80	70	-10
Average	**290**	**280**	**-10**
Social housing			
Bottom	350	360	+10
2	410	340	-70
3	180	180	0
4	100	90	-10
Top	30	40	+10
Average	**210**	**200**	**-10**
Right to Buy			
Bottom	50	60	+10
2	80	70	-10
3	80	110	+30
4	90	110	+20
Top	60	40	-20
Average	**70**	**80**	**+10**

Estimates of housing benefits in kind are very sensitive to the methodology used for imputing 'economic rents' (i.e. the unsubsidised value of social sector tenancies). Using the private rented sector as the benchmark produces much higher values than our previous method, which assumed a 4% return on estimated property values (Sefton, 1997). In 1993/4, the average value of housing benefits in kind was around £150 per person using the previous methodology, compared to £360 per person using the new methodology (both in 2000/1 prices). This is

because the implicit rate of return to private landlords is substantially greater than 4%. The differential has narrowed over time as private sector rents have risen more slowly in real terms than property values up to 2000/01. The shape of the distribution, however, is very similar whichever method is used[7].

Housing is the most pro-poor of all the major services, reflecting the concentration of social sector tenants at the bottom of the income distribution – over 40% of people in the bottom quintile group are social sector tenants, compared to less than 3% of those in the top quintile (see Table 12).

Table 12: Use of Housing Services by Income Group, 1996/7 and 2000/01

% of individuals 'using' each service and whether significantly different to bottom quintile group.	Income group (quintile groups of individuals)				
	Bottom	2	3	4	Top
Social sector housing[1]					
- 1996/7	42%	39%**	17%**	8%**	2%**
- 2000/1	42%	35%**	17%**	8%**	3%**
Right To Buy scheme[1,2]					
- 1996/7	6%	9%**	10%**	10%**	5%**
- 2000/1	6%	10%**	15%**	12%**	4%**

Notes:

** significantly different to bottom quintile at 1% level, * significantly different at 10% level

1. Based on Family Resources Survey
2. Owner-occupiers who purchased their current home from the local authority. These figures are adjusted upwards to allow for those Right To Buy participants who cannot be identified in the Family Resources Survey because they have since moved home (see Annex A for details).

[7] This reflects the close correlation between imputed market rents and property values, which are the basis for estimating economic rents in each approach, respectively.

There are two other major determinants of the value of benefits in kind from social housing. Firstly, rent differentials are much narrower in the social rented sector than in the private rented sector and, therefore, subsidies are much greater, on average, for more valuable properties in London and the rest of the South East. Secondly, the average subsidy per person is greater for people living alone or in small households, because there are economies of scale in accommodating larger households. (The rent on a typical four-bedroom home, for example, will, on average, be less than double the rent on a typical two-bedroom home.)

Both factors tend to reduce the pro-poor bias, because social sector tenants living in smaller households and/or in the South East are more likely to be in higher income groups. Thus, on average, better-off social sector tenants receive a higher subsidy per capita than those from lower income groups. Despite this, the distribution of benefits from social housing is still strongly pro-poor.

By contrast, the Right To Buy (RTB) scheme appears to be of most benefit to households in the middle of the income distribution, because better-off tenants are more likely to have exercised their Right To Buy (see Table 12). They would be in a better position to obtain a mortgage and would perhaps have had greater aspirations to own their own home - and this scheme gives them a quicker and cheaper route into owner-occupation. There is also evidence that the stock of past RTB participants, who are included in our estimates (and who outnumber recent purchasers) have been moving up the income distribution over time (see below), suggesting that RTB households are also more 'upwardly-mobile' than other households in the social rented sector.

Households that exercise their Right To Buy are typically larger than other social sector households, so the average subsidy per head is slightly lower (see above). Unlike social housing, subsidies per head do not vary much between income groups, because participants in the RTB scheme are a more homogeneous group – predominantly larger families, living in semi-detached or terraced houses.

The impact of including the RTB scheme is to dampen the pro-poor bias in the overall distribution of housing benefits in kind, though it remains strongly pro-poor.

EXPLAINING CHANGES

Our estimates of housing benefits in kind have fallen since 1996/7, because private sector rents fell slightly in real terms[8], whilst social sector rents rose in real terms.

Between 1979-1993/4, there was a marked shift in favour of lower income groups as the size of the social rented sector fell over time and what remained has been allocated increasingly to those in lower income groups – part of the 'residualisation' of council housing. This trend appears to have petered out in recent years. There has been some redistribution between income groups since 1996/7, but the pattern is more uneven and less straightforward to explain (see Table 13).

The bottom quintile experienced a small increase in its share, because the average size of households in this income group has fallen, which means that the average subsidy per person has risen. The third and fourth quintiles have also gained slightly, because of changes in the distribution of benefits from the Right To Buy scheme. Past RTB participants tend to be older and have higher incomes than recent participants. As the stock of previous participants increases, so the distribution appears to have shifted in favour of middle/upper income groups. The second quintile, on the other hand, experienced a significant fall in its share of housing benefits in kind, because it has a lower proportion of social sector tenants than before (35% in 2000/01, compared to 39% in 1996/7). The top quintile receives a small share of benefits in kind in both years.

[8] According to official data (based on the Private Renter's Survey and published by the Office of the Deputy Prime Minister), the average rent on assured shorthold tenancies in the private rented sector were £94 per week in 1996/7 and £103 per week in 2000/1 – a 1% fall in real terms (using the GDP deflator). In our FRS sample, the fall in average rents was 2.5% in real terms.

Table 13: Changing Distribution of Housing Benefits in Kind, 1996/7-2000/01

	Actual share received (1)	Share received if distribution were based solely on age and gender (2)	Income effect (1) – (2)
2000/01			
Bottom	30.1%	20.8%	+9.3%
2	30.0%	21.2%	+8.8%
3	20.4%	20.1%	+0.3%
4	14.3%	19.3%	-5.0%
Top	5.2%	18.8%	-13.6%
1996/97			
Bottom	28.0%	20.5%	+7.5%
2	34.2%	21.5%	+12.7%
3	18.7%	20.0%	-1.3%
4	13.3%	19.2%	-5.9%
Top	5.8%	18.8%	-13.0%
Change: 1996/97-2000/01			
Bottom	+2.1%	+0.3%	+1.8%
2	-4.2%	-0.3%	-3.9%
3	+1.7%	+0.1%	+1.6%
4	+1.0%	+0.1%	+0.9%
Top	-0.6%	0.0%	-0.6%

d) Personal Social Services

Personal Social Services (PSS) are the smallest component of the social wage, but a very important addition for very elderly who make the greatest use of these services. In 1996/7, the UK spent around £250 per person on residential and non-residential social services (in 2000/01 prices). We allocate around 40% of this, excluding all residential care for children and working age adults. We do not have adequate survey data for 2000/01, so we are unable to examine changes over time. The analysis below is for 1996/7, based on data from the Disability Follow-Up to the 1996/7 Family Resources Survey.

UNDERSTANDING THE DISTRIBUTION

Table 14 shows the distribution of benefits in kind for personal social services for older people and for younger adults with a mental illness or learning disability (non-residential care only). These services include home help, day centres, meals-on-wheels, nursing homes, and residential homes for the elderly.

Table 14: Distribution of Benefits in Kind from Personal Social Services, 1996/7 (in 2000/01 prices[1])

	All individuals (£s per person[1])	Aged 75 or over (£s per person[2])	Younger adults (£s per person[1])
Non-residential care			
Bottom	30	180	15
2	75	290	45
3	75	490	45
4	45	440	30
Top	15	240	15
Average	**50**	**300**	**30**
Residential care			
Bottom	60	540	-
2	105	850	-
3	50	670	-
4	20	510	-
Top	5	250	-
Average	**50**	**650**	**-**

Notes:

1. Rounded to nearest £5
2. Rounded to nearest £10.

The distribution of benefits in kind from personal social services is neither pro-poor, nor pro-rich. Individuals in the bottom income group benefit more than those in the top income groups, but those in the middle of the income distribution benefit most. In part, this reflects the spread of older and disabled people within the income distribution.

However, even when differences in the age and disability of people in different income groups are taken into account, there remains a positive bias in favour of middle income groups and a negative bias against potential service users in the bottom income group. This is perhaps surprising given that these services are delivered on the basis of need and, in the case of residential care, are subject to a means-test.

In the case of non-residential care, the distribution is hump-shaped. Individuals in the bottom quintile group make less use of home care and day care services than middle income groups. Focusing only on people with a more severe disability, those in the bottom income group use fewer services than all other income groups, including the top quintile – and these differences are statistically significant (see Table 15).

Table 15: Use of Personal Social Services by Income Group, 1996/7

% of individuals using each service and whether significantly different to bottom quintile group	Income group (quintile groups of individuals)				
	Bottom	**2**	**3**	**4**	**Top**
Home care services[1]					
- All persons	0.8%	1.5%**	1.4%**	0.9%	0.3%**
- Low disability[2]	3%	5%**	4%	2%	2%
- Medium/ severe disability[3]	6%	9%*	14%**	15%**	10%*
Day care services[1]					
- All persons	0.6%	1.5%**	1.2%**	0.5%**	0.4%**
- Low disability[2]	3%	6%**	5%**	2%	4%
- Medium/severe disability[3]	5%	9%**	10%**	7%*	8%*

Notes:

1. Based on Disability Follow-Up to the 1996/7 Family Resources Survey.
2. OPCS categories 1-3.
3. OPCS categories 4 or higher.

Users in lower income groups are often charged less for these services, but charges may have a greater disincentive effect on their use, because their incomes are relatively low - although survey data suggests that affordability is not the issue. Other possible explanations are that potential users in lower income groups are more reliant on informal

support from relatives and friends, or that they are less able or willing to access services.

Support for those in residential care is entirely means-tested, and so is more favourable to lower income groups than non-residential care. However, the distribution is not as pro-poor as one might perhaps expect, because of the way the means-test operates. Firstly, housing equity is included within the means-test (for those who do not have partners or dependents living at home). Older people in the bottom income group are more likely to own their own home than older people in the middle of the income distribution and so would be less likely to qualify for support towards the costs of residential care, even though their incomes are lower. Secondly, the means-test is based on an individual's income, as opposed to household income, which means that more people in higher income groups qualify than would otherwise be the case. (This has less impact on those at the bottom of the income distribution, because many of them would still qualify for support even if their partner's income were included.) Those in the second quintile group do best, because they have relatively low incomes and relatively small amounts of capital, including housing equity.

Table 16 shows the combined share of benefits in kind from residential and non-residential care. Those in the bottom quintile group receive less than an equal share (i.e. 20%), but would be expected to receive substantially more than an equal share on the basis of their demographic composition – hence, the large and negative "income effect" implied in the discussion above.

Table 16: Distribution of Personal Social Services Benefits in Kind, 1996/7

	Actual share received (1)	Share received if distribution were based solely on age and gender (2)	Income effect (1) – (2)
Bottom	18.6%	25.3%	-6.7%
2	37.2%	29.2%	+8.0%
3	25.7%	19.6%	+6.1%
4	13.6%	14.5%	-0.9%
Top	4.8%	11.4%	-6.6%

V. Summary

In 2000/01, benefits in kind from publicly funded welfare services were worth an average of £1,700 per person or nearly £4,000 per household (or more if personal social services were included). This represents a very substantial addition to people's incomes, especially for those in lower income groups. On average, individuals in the bottom two fifths of the income distribution receive around twice as much as those in the top fifth, 50% more than those in the fourth quintile, and 25% more than those in the middle quintile.

Overall, around half this pro-poor bias is explained by demographic factors; lower income groups contain more children and older people, who are the most intensive users of education and health care services. However, a clear pro-poor bias remains even if differences in the demographic composition of income groups are controlled for. This shows the importance of taking into account variations in people's use of welfare services that are related to their incomes and other socio-economic characteristics, which are not reflected in official estimates of benefits in kind produced by the Office of National Statistics (ONS).

There are other important differences between our methodology for estimating benefits in kind and that used by the ONS. In the case of housing, this produces much larger estimates, which we believe more accurately reflect the economic value to tenants of living in social housing. In the case of higher education, it generates a pro-rich, rather than a pro-poor, distribution, because we allocate the benefits to parents instead of students. This seems to be more consistent with the principles that underlie the funding of higher education.

Although the overall distribution of the social wage is pro-poor, the extent of this pro-poor bias varies markedly between services (see Table 17). Social housing is strongly pro-poor and health care, schools, and further education are moderately pro-poor. Personal social services and the Right To Buy scheme are pro-poor according to the summary indicator used in Table 13, which focuses on the two extremes of the income distribution; but the distribution is in fact hump-shaped, favouring those in the middle of the income distribution. Higher education is pro-rich if the benefits are allocated to their parents, although this result is very sensitive to assumptions about the impact of supporting dependent students on their parents' standard of living.

Controlling for demographic differences reduces the pro-poor bias for the reasons already discussed. For education services, in particular, most of the variation between income groups can be accounted for by demographic factors.

The overall pro-poor bias is substantially greater than the figures reported in our earlier work (Sefton, 1997) – the ratio of benefits in kind received by the bottom and top quintile groups was 1.7 (or 1.2 after adjusting for demographic effects). One reason is that there has been an increase in the pro-poor bias since 1993 (see below). But, this increase is also partly explained by changes in the methodology for estimating the value of the social wage. Firstly, the new approach to imputing housing benefits in kind produces much larger estimates than the old approach; since housing is more pro-poor than other services, this increases the overall pro-poor bias. Secondly, recent surveys have better data, which allows us to capture more fully variations in the use of services between income groups – for example, information on the use of private health care. This produces more accurate estimates of benefits in kind, which are generally more pro-poor.

Table 17: Distribution of Benefits in Kind by Service, 2000/01

	Ratio of benefits in kind received by individuals in the bottom quintile group relative to top quintile group.	
	Adjusted	**Demographically-adjusted[1]**
Health care	**1.8**	**1.5**
In-patients	2.2	1.6
Out-patients	1.4	1.2
GP consultations	1.5	1.4
Prescriptions	2.0	1.5
Dental services	1.0	0.9
Education	**1.7**	**1.0-1.1**
Schools (under 16)	2.6	1.2
Schools (over 16) and FE	1.6	0.8
Higher education	0.6	0.8-1.0
Housing	**5.9**	**5.3**
Social rented housing	9.7	8.1
Right To Buy	1.5	1.6
Personal Social Services	**3.9**	**1.7**
Non-residential care	1.7	1.3
Residential care	10.1	2.4
ALL SERVICES	**2.1**	**1.5**

Note:

1. This is calculated by dividing the share of benefits in kind received by each income group by the amount they would receive if individuals in each income group were allocated the average for their age/gender group or, in the case of higher education, if spending were distributed evenly between all university-age children (for the lower figure) or all university-age children living at home (for the higher figure).

Analysis of individual services highlights a number of factors that contribute to a pro-poor bias in the distribution of benefits in kind. These are, broadly in order of importance:

- Differences in the age composition of income groups, except in the case of higher education;
- Other factors affecting need, such as long-standing illness in the case of health and social care services and special needs in the case of schools;
- Targeting of services, such as social housing;
- Differential use of private alternatives, including private schools and health care;
- Means-tested support, for example for residential care, and charges for prescriptions, dental care and other services.

There are also some offsetting factors that lead to a more pro-rich (or less pro-poor) distribution than would otherwise be the case. For example:

- Participation rates in post-compulsory schooling and higher education are lower for young people from poorer households, although there is some evidence that the gap has been closing;
- Better-off social sector tenants have been more able to take advantage of the Right To Buy scheme;
- Including housing equity in the means-test for residential care support hits the bottom income group particularly hard, because they contain a high proportion of poor owner-occupiers;
- In the case of social care and to a lesser extent health care, there seems to be an unexplained bias against potential users in the bottom quintile group, who report using fewer services in relation to needs than individuals in higher income groups.

The value of the social wage has increased substantially in real terms – by nearly 50% between 1979 and 2000/01. Furthermore, the share of benefits in kind received by the bottom two quintiles has increased incrementally throughout this period. This cannot be accounted for by demographic factors, which have favoured higher income groups. This trend continued between 1996/7 and 2000/01, broadly the period of this Labour Government's first term in office. Over this period, the share of the social wage received by the bottom income group has risen by 0.8 percentage points, whilst that received by the top income group has fallen by around the same amount.

Changes in the distribution over time are harder to explain than the overall distribution at any given point in time. The amounts involved are relatively small for individual services or specific sub-periods, although the cumulative impact is significant over the longer-term and across all services. Nor is there a single or consistent explanation for the increase in the pro-poor bias. Some of these changes reflect a conscious attempt to redistribute the benefits in favour of lower income groups - for example encouraging higher participation rates in further and higher education for young people from lower socio-economic groups. Some changes are largely a by-product of other government policies - for example the 'residualisation' of social housing, which has led to a concentration of social sector tenants at the bottom end of the income distribution. Other changes reflect changes in the pattern of needs - for example an increase in the proportion of individuals in lower income groups who report a long-standing and limiting illness relative to higher income groups.

Changes in the social wage between 1996/7-2000/01 are progressive: as a percentage of their incomes, households in lower income groups benefited more than households in higher income groups – by 4-5%, on average, for the poorest 40% of households, compared with less than 1% for the top three quintiles. Compared with the impact of tax and benefit policies – the other major instrument for redistribution - changes in the social wage are around half the size and slightly less progressive, but help to reinforce the re-distributional effects of fiscal reforms over this period.

The overall impact of the social wage on inequality is about the same in 2000/01 as it was in 1996/7. Although the social wage is now more pro-poor, it is also a smaller share of household incomes, because households' cash incomes have grown at a faster rate than the value of their social wage over this period – 12% in real terms as against 8%. These two effects cancelled each other out. Thus, changes in the social wage have not prevented inequality in final incomes, which include the social wage, from rising as much as inequality in cash incomes.

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Annex A: Details of Methodology for Allocating Benefits in Kind

A1. Health care

Annex C provides a breakdown of public expenditure on health care. Spending on individual health care services is allocated in proportion to peoples' use of these services, using micro-data from the Family Resources Survey, the General Household Survey, and the British Household Panel Survey for the relevant years (see Annex B for more details).

Expenditure is not allocated if there is no survey data on the use of these services or if spending cannot easily be attributed to individual patients (e.g. central and miscellaneous services). The one exception is "other hospital services" which is allocated in proportion to imputed spending on all other hospital services. In total, we allocate around 85% of total health care expenditure.

Where data is not available from the Family Resources survey - the base data set for all our analysis - then information has to be 'imported' from one of the other household surveys. Logit regressions are used to estimate the probability that someone will have used a particular service, for example an inpatient stay in an NHS hospital, based on their own and their household's characteristics, using a set variables also available in the FRS. Variables included in these equations include health status (whether has a long-standing and/or limiting illness, whether in receipt of invalidity benefit), employment status, household type, region, tenure, and household income (dummies for each quintile group). Separate regressions are run for 8 different age and gender groups (aged 0-15, 16-44, 45-64, and 65+) to allow for differences in the significance of variables between these groups, following Propper and Upward (1993). These equations are used to impute the probability that someone will have used a particular service at least once for all individuals within the FRS.

To allow for the fact that some people will have used these services more intensively than others, these probabilities are weighted, using information in the GHS on the average number of times each service is used for broad categories of age and health status.

A further adjustment is made for differences in the average cost of treating patients. Older patients, for example, are generally more expensive to treat than younger patients. Firstly, we estimate total expenditure by age group, when spending is allocated directly in proportion to people's use of hospital and community health services (i.e. assuming unit costs are the same for all patients). Secondly, we compare these with figures published by the Department of Health in their Annual Report and adjust our estimates upwards or downwards, so that in aggregate they match the DH figures.

Having allocated gross expenditure, charges are deducted for prescriptions and dental services. Patients who are exempt from charges (i.e. children, older people, and new mothers) are identified and total revenue from charges is then allocated to all other patients in proportion to their use of these services.

A2. Education

Annex C provides a breakdown of public expenditure on education. Around 80% of this is allocated, excluding support services, miscellaneous services, and estimated spending on part-time students in further and higher education (see below).

Spending on state-run nursery/primary, secondary, and special schools is distributed evenly between pupils in each type of school. Expenditure on "under fives" is combined with spending on primary schools, because the Family Resources Survey does not distinguish the two. No attempt is made to allow for local variations in spending per pupil.

Only full-time students in tertiary education are clearly identifiable within the Family Resources Survey, because the 2000/01 survey does not distinguish between part-time students and people attending evening classes and other 'leisure-oriented' classes. We estimate the amount spent on full-time students in further education and allocate this to students in the same way as spending on schools (see above).

For the reasons discussed in the main paper, spending on higher education is not allocated to students even if they are living away from home, but to their parents (except for mature students). This, we believe, is more consistent with the principles that underlie the funding of higher

education. Support towards tuition fees, for example, is based on parental incomes, not students' own incomes.

The FRS is able to identify three categories of students: mature students (aged 25 or over), younger students living with their parents, and younger students studying away from home. Not all students in the last of these categories will be included directly in household surveys – those living in halls of residence will be omitted, like all people living in institutional settings. However, they can be identified indirectly, because older respondents to the Family Resources Survey are asked whether they have children aged 16-24 who are studying away from home and, if so, how many. (This will include some part-time students and some who are not in higher education, but it is the best information we have available.)

Again, we estimate the share of government grants to higher education establishments that is for full-time students and distribute this evenly between mature students and parents of younger students. We do not allocate any of this expenditure to younger students who are in the survey, but who are not living with their parents. In effect, the benefits to these students are allocated instead to their parents (or, more accurately, a representative sample of parents with children in higher education).

Survey data on household incomes is used to simulate the amount of student support received by mature students and the parents of dependent students. For 1996/7, we attempt to simulate the system that prevailed before 1998/9 – course fees for most full-time students, means-tested maintenance grants, and student loans. For 2000/01, we simulate the new system introduced in 1998/9 – means-tested tuition fees, and larger student loans (which are also partly means-tested). Although student loans are different in nature to other types of expenditure, there is a substantial subsidy implicit in the arrangements for repaying loans – zero real interest rates, delayed repayment, and deferment option for those on low incomes. We assume that this subsidy is equivalent to 50% of the value of the loans taken out in any given year, following Barr (2002).

A3. Housing

Housing is treated differently to other services, because current expenditure is a poor guide to the value of social housing. The biggest item of expenditure is the Housing Revenue Account subsidy to local authorities to cover the difference between their expected rental income and interest charges on past borrowing. This depends to a great extent on the maturity of the housing stock, which is largely irrelevant to any proper valuation of the benefits to social sector tenants. The other major item is expenditure by the Housing Corporation on the construction of new social housing. But, what we would like to measure is not this initial capital investment, but the flow of benefits to tenants in subsequent years. Lastly, the Right To Buy scheme involves substantial subsidies to buyers in the form of large discounts on the purchase price, but no direct public expenditure. Therefore, a different approach is needed for housing.

What we attempt to measure instead is the difference between the rents paid by social sector tenants and the 'economic rent' that would need to be charged if local authorities were to cover their costs in full. Economic rents are estimated using information on the rents paid for similar properties in the private rented sector. So, what we are effectively measuring is the additional amount that social sector tenants would need to pay if they had to rent their property privately at 'market rents', rather than at the subsidised rents charged by local authorities and housing associations.

In our previous report (Sefton, 1997), economic rents were based on estimated property values, using information on purchase prices in the owner-occupied sector. The advantage of using the private rented sector to estimate economic rents is that rents are less cyclical than house prices, so our estimates of benefits in kind will be more stable over time. Furthermore, there is no need to make allowances for maintenance and management costs, since landlords should take these costs into account in setting private sector rents.

Using a sample of around 1,000 private rented sector properties in the 2000/01 FRS (and around 800 properties in the 1996/7 FRS), we estimate a regression for rents, based on the characteristics (e.g. property type, number of bedrooms) and location of the property. Separate regressions are estimated for properties in different council tax bands. Only assured short-hold tenancies are included in this analysis, because

rents on other types of tenancies are likely to be distorted. These regression equations are then used to estimate the economic rent for similar properties in the social rented sector.

Whilst these equations are good at explaining the variation in rents in the private rented market, they will not capture all those factors that influence market rents, in particular local or neighbourhood effects – only regional dummies are included in our regression analysis. This would not matter if there were no systematic differences between the sorts of neighbourhoods where private rented properties are located and the sort of neighbourhoods where social rented sector properties are located. But, if, as we might expect, social rented properties are in less desirable locations then we may be over-estimating the economic rent on social sector properties. We do, however, estimate separate regressions for properties in each council tax band, so this is only a problem in so far as we may be over-estimating economic rents within each tax band (i.e. we are not using information on 2-bedroom flats in Chelsea to estimate the economic rent on 2 bedroom council properties in Bermondsey).

One way of testing whether we may be systematically over-estimating the worth of council housing is by comparing the value of ex-council properties purchased under the Right To Buy scheme with the value of other private sector housing, whilst controlling for all the other characteristics included in our regressions. This is not an ideal comparison, because RTB properties are not representative of all council housing and owner-occupied homes are not representative of private rented properties, but it does at least provide a weak test of our hypothesis. If we include a dummy variable for RTB properties in regressions of property values against dwelling characteristics (with separate regressions for each council tax band), the coefficient is relatively small, quite often positive, and in all but one case insignificant (at the 10% level). In other words, within each tax band, RTB properties do not appear to be worth significantly less or more, on average, than other similar properties in the owner-occupied sector. Thus, on this basis at least, there is no evidence that we are significantly over-estimating (or under-estimating) the worth of council housing.

Having estimated the economic rent on social sector properties, we simply deduct the gross rent charged by the local authority or housing association in order to obtain our estimates of benefits in kind. We do not deduct the actual rent paid, but the amount tenants would pay if

they were not receiving any housing benefit. (Housing benefit is already included in people's cash incomes and so we do not wish to include it again in our measure of benefits in kind.)

Former Right To Buy participants are also allocated a benefit in kind to reflect the subsidy they receive in the form of large discounts on the purchase price of their home. This ensures that comparisons over time are not distorted by the shift from one form of subsidy (i.e. subsidised rents) to another (i.e. subsidised owner-occupation). Households who have exercised their Right to Buy are identified in the FRS, providing they are still living in the same property (see Annex B). Figures on total Right To Buy sales by region (up to and including the year of analysis) are used to gross up our figures to allow for those participants who benefited from the scheme, but have since moved on. The implicit assumption is that those participants who have stayed put are representative of those who have moved on (in terms of their position in the income distribution).

The value of the discount received by RTB households could be treated as a once-off lump sum benefit and allocated in full to households who exercised their Right To Buy in that year. An alternative approach adopted in this analysis is to calculate benefits in kind for RTB participants in a similar way to those for social sector tenants, which spreads the benefits over time. In the case of RTB participants, we have to estimate both the economic rent and the social sector rent they would be paying if they had remained as social sector tenants (again using regression analysis). Our estimate of benefits in kind is the difference between the imputed private sector rent and the imputed social sector rent on their property. The rationale for this rather convoluted approach is that these households would not have exercised their Right To Buy if they were not going to be at least as well off as they would have been as social sector tenants. The advantage of doing it this way is that the results are comparable with our estimates of benefits in kind for social sector tenants.

So far, our estimates of housing benefits in kind are for the whole household. To put these on a par with estimates of benefits in kind for other welfare services, we divide them by the number of people in the household.

A4. Personal Social Services

Some non-residential care services, such as home help, are only used by a very small proportion of the population. Therefore, large samples are needed to be able to explore variations in the use of services by income group. The only reliable source of data that we have available is the Disability Follow-Up Survey to the 1996/7 Family Resources Survey. This asks detailed questions on the use of various social and health services by all older and disabled respondents in the main FRS survey for that year. However, a similar follow-up survey was not carried out in 2000/01 (or any of the intervening years), so we are only able to produce estimates of benefits in kind for 1996/7.

As for health care services, expenditure on home care, day care, and meals on wheels, is allocated in proportion to people's use of these services, using information on how often people use these services. Charges are then deducted in proportion to usage, excluding those who are in receipt of income support (who would normally be exempt from paying charges). In practice, local authorities operate a range of different charging policies, which we are not able to replicate, but this is unlikely to have a material impact on our estimates of benefits in kind.

Benefits in kind from residential care for the elderly are allocated to the household population using an insurance-based approach. The rationale, as explained in the main part of the paper, is that the government is effectively providing part insurance against the 'risk' of being admitted into residential care. The value of this insurance policy is equal to:

- the probability that someone will require residential care given their age, gender, and marital status; multiplied by
- the amount of public support they would receive if they were admitted into residential care.

The former is based on estimates of the numbers of people in residential or nursing homes in 1996, broken down by age, gender, and whether the person was living alone before they were admitted (Wittenburg, 1998). These are divided by the total population in these categories to generate the probability of someone of a given age, gender, and household status being in residential care. This does not allow for any differences in admission rates by income group, although incomes

are taken into account in estimating the amount of public support each individual would receive if they were admitted (see below).

The latter is simulated using information on people's income, savings, and housing equity, using the rules laid out for means-tested support from local authorities (for those admitted into permanent care). Housing equity is only included if someone owns their own home and is the head of household (i.e. does not have a partner or dependents living with them).

Annex B: Survey Questions Used to Allocate Benefits in Kind

Health care:		
Inpatient stays	Whether been in hospital as an inpatient during the last year and, if so, how many stays, and how many of these were in an NHS hospital (excluding inpatient stays in order to have a baby, which are allocated separately to all mothers with a baby aged less than one).	General Household Survey
Day-patient visits	Whether been in hospital as a day-patient during the last year and, if so, how many separate visits and how many of these were under the NHS.	"
Outpatient visits	Whether attended the casualty or outpatient department of a hospital during the last 3 months and, if so, how many times and how many were made under the NHS.	"
GP consultations	Whether talked to a doctor during the last 2 weeks, apart from any visit to hospital and, if so, how many times and whether consultations were made under the NHS, including consultations made on behalf of children or other household members (which are allocated to the person on whose behalf the consultation was made).	"
Prescriptions	Whether received something on prescription in the last 4 weeks and, if so, how many items and whether had to pay for them.	Family Resources Survey
Dental services	Whether visited the dentist for an NHS examination or treatment in the last 4 weeks.	"
Opthalmic services	Whether had a free eyesight test or purchased glasses or contact lenses with the help of an NHS voucher in the last 4 weeks.	"
Community Health Services	Whether made use of health visitor/ district nurse and/or chiropodist in the last year and, if so, whether this was under the NHS and whether had to pay for each service (adults only).	British Household Panel Survey
Education:		
Primary/ nursery schools	Whether attends a state-run nursery/ primary/ playschool.	Family Resources Survey
Secondary schools	Whether attends a state-run or assisted secondary school.	"
Special schools	Whether attends a state-run special school.	"

Further education	Whether attends a non-advanced further education/ 6th form/ tertiary/further education college.	"
Higher education	Whether attends a university (for mature students and younger students living at home).	"
	Whether have any children aged 16-24 outside this household who are in full- or part-time education (for younger students living away from home).	
Housing:		
Social housing	Whether rents from the local authority/ New Town/ Scottish Homes or a housing association, charitable trust or Local Housing Company and, if so, the gross weekly rent.	Family Resources Survey
	Survey data on rents for assured short-hold tenancies in the private rented sector are used to impute economic rents for social sector tenants.	
Right To Buy	Whether owner-occupiers previously rented the property from the local authority or housing association.	"
Personal Social Services:		
Home care	Whether, in the past 6 months, has received one or more of the following services: local authority home help, laundry service, night sitting service, rehabilitation, or guide/help for the deaf/ blind.	Disability Follow-Up to the 1996/7 FRS
	If so, how often.	
Day care	Whether regularly goes to a day centre, adult training centre, or other centre for training or social activities. If so, how often.	"
Meals on wheels	Whether has received meals on wheels service in the past 6 months and, if so, how often.	"
Residential care/ nursing home	Survey data on individuals' incomes, savings, and housing equity used to simulate the amount of financial support they would receive if admitted to a residential or nursing home.	Family Resources Survey

Annex C: Breakdown of Expenditure by Service

Table C1: Public Expenditure on Health Care in the UK, 1996/7-2000/01[1]

(net current expenditure, £ million, 2000/01 prices)[2]	1996/7	2000/01	% change: (1996/7-2000/01)
Hospital and community health services:			
In-patients	18229	21581	18%
Out-patients	5541	6202	12%
Day-patients	638	685	7%
Other hospital services	672	1412	110%
Community health services[3]	5096	7296	43%
Other HCHS[4]	2240	2354	5%
Total HCHS:	**32416**	**39531**	**22%**
Family health services:			
GP consultations	3833	4451	16%
Prescriptions[5]	5754	7016	22%
Dental Services[5]	1239	1361	10%
Opthalmic services	320	370	16%
Total FHS:	**11146**	**13198**	**18%**
Central and miscellaneous services[4]	1309	1346	3%
All health care services:			
Total expenditure	44871	54073	21%
Allocated expenditure	**38506**	**45585**	**18%**
% allocated[4]	86%	84%	

Notes:

1. Gross expenditure figures are from the Department of Health's Annual Report (for England), Health Statistics Wales, and the Annual Abstract of Statistics (for Scotland). The breakdown of spending within the health and community services total is based on figures produced for the House of Commons Select Committee. For 2000/01, the same proportionate split between services is assumed as in 1999/2000.

Estimated charges for pharmaceutical and dental services and NHS trust receipts (for private operations) are deducted, using information from the Department of Health's Annual Report and the Annual Abstract of Statistics.

2. Figures for 1996/7 are converted into 2000/1 prices using the GDP deflator in market prices from the Office of National Statistics' Blue Book 2002.
3. Only spending on certain community health services is allocated, including district nursing, health visiting, chiropody, and community maternity services.
4. Spending on these services is not allocated, because survey data is not available on the use of these services or because they are not easily attributable to individuals.
5. Net of revenue from charges for prescriptions and dental services.

Table C2: Public Expenditure on Education in the UK, 1996/7-2000/01[1]

(net current expenditure, £ million, 2000/01 prices)[2]	1996/7	2000/01	% change: (1996/7-2000/01
Schools			
Under fives	1602	2190	37%
Primary	8095	9454	17%
Secondary	9942	11389	15%
Special	1548	1603	4%
Support services[3]	2006	2888	44%
Capital[3]	1350	1602	19%
Total schools:	**24543**	**29126**	**19%**
Further education[4]	**5466**	**5668**	**4%**
Higher education			
Grants to HE institutions[4]	5172	6022	16%
Student support [5]	2934	1862	-37%
Total HE:	**8106**	**7884**	**-3%**
Miscellaneous services[3]	**2217**	**1497**	**-32%**
All education services:			
Total expenditure	40566	44175	9%
Allocated expenditure[5]	**31384**	**34324**	**9%**
% allocated	77%	78%	

Notes:

1. Total expenditure figures for the UK and a broad breakdown by area of expenditure are from H M Treasury's Public Expenditure Analyses for 2002-3 and earlier years. A more detailed breakdown of schools expenditure is based on data from the DfES's "Education and Training Expenditure since 1991-2", assuming the split for Scotland and Wales as for England. More detailed data on student support is from the DfES's "Student Support: Statistics of Student Support for Higher Education in England and Wales" and "Student Support: Statistics of Student Loans for Higher Education in the United Kingdom." Data on contributions towards fees and maintenance is for England and Wales only, so figures are adjusted upwards, based on numbers of higher education students in England and Wales and the UK as a whole.
2. Figures for 1996/7 are converted into 2000/1 prices using the GDP deflator in market prices from the Office of National Statistics' Blue Book 2002.
3. Spending on these services is not allocated, because survey data is not available on the use of these services or because this expenditure is not easily attributable to individuals. This includes expenditure on part-time students in further and higher education (see footnote 3).
4. Only expenditure on full-time students is allocated, because the surveys we are using do not identify part-time students on a consistent basis. Estimates of the share of total spending on full and part-time students is based on the numbers of (Full-Time Equivalent) students in each mode of study, where part-time students are counted as 0.35 of an FTE.
5. Covers mandatory awards for fees and maintenance (for students starting their studies pre-1998/9), contributions towards tuition fees (post 1998/9), and student loans. Imputed expenditure on student loans is equal to 50% of the value of loans in any given year. A few (small) items of spending are not allocated, including discretionary loans by local authorities.

Table C3: Public Expenditure on Personal Social Services in the UK, 1996/7-2000/01[1]

(net current expenditure, £million, 2000/01 prices)[2]	1996/7	2000/01	% change: (1996/7-2000/01)
Older people			
Nursing home	787	980	
Residential care homes	1646	1751	
Income Support for people in residential care	1561	1070	
Other[5]	40	40	
Total residential care:	**4036**	**3841**	**-5%**
Day care	185	221	
Home Care	1152	1240	
Meals	60	76	
Other[5]	359	394	
Total non-residential:	**1756**	**1931**	**+10%**
Care assessment[5]	454	477	
Total for older people:	**6246**	**6249**	**0%**
Younger adults			
Residential care[3,5]	1624	1806	
Non-residential care	1283	1561	
Care assessment[5]	343	426	
Total for younger adults:	**3251**	**3793**	**+17%**
Children[5]			
Residential care	879	1012	
Non-residential care	1224	1604	
Care assessment	601	733	
Total for children:	**2704**	**3350**	**+24%**
Other[5]	**899**	**1347**	**+50%**
All Personal Social Services:			
Total expenditure	13100	14739	+13%
Allocated expenditure[5]	**5389**	**-**	
% allocated[5]	41%	-	

Notes:

1. Net expenditure figures for the UK are from HMT's Public Expenditure Statistical Analyses to which are added expenditure on Income Support for people living in residential or nursing homes (provided by the Department for Work and Pensions). Gross expenditure figures are imputed using data for England (from the Department of Health's Bulletin, "PSS Expenditure and Unit Costs"). The breakdown between client groups and between services is based on figures produced for the House of Commons Select Committee.
2. Figures for 1996/7 are converted into 2000/1 prices using the GDP deflator in market prices from the Office of National Statistics' Blue Book 2002.
3. Includes Income Support expenditure on under-60 year olds living in residential or nursing homes (Residential Allowance and support for those with Preserved Rights).
4. Income Support expenditure is for 1994/5.
5. Spending on children and residential care for younger adults is not allocated, because reliable data is not available on the use of these services. Spending on "care assessment" and "other" services is also excluded for the same reason.